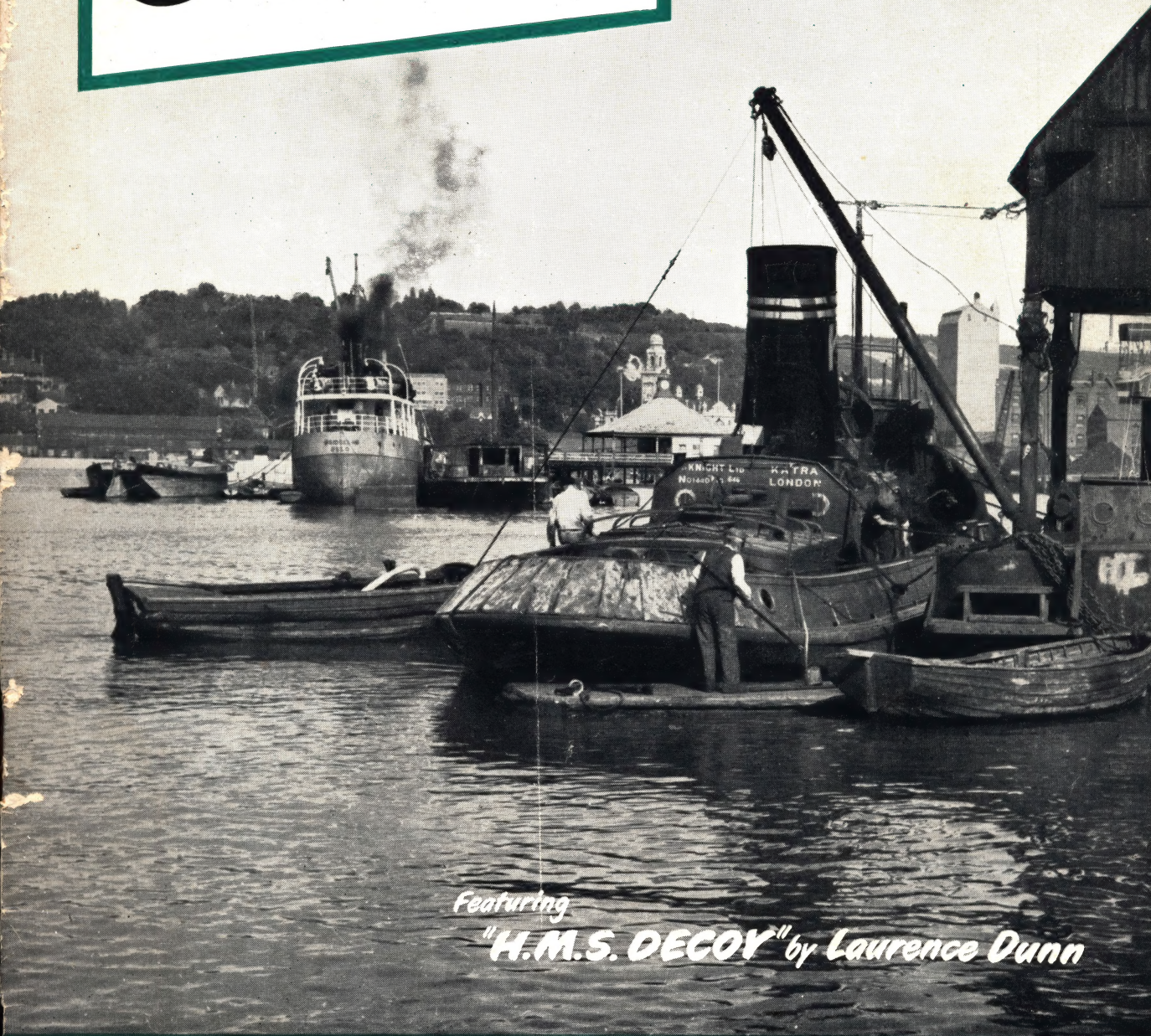


Ships **AND SHIP MODELS**

TWO SHILLINGS
APRIL 1954



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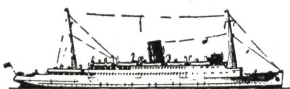
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Ships **AND** **SHIP MODELS**

INCORPORATING MODEL SHIPS & POWER BOATS

Vol. VII. No. 76. APRIL 1954

THE SHIP'S LOG

THE "CUTTY SARK"

A definite step forward was made in the restoration of the *Cutty Sark* on Thursday February 18th, when the ship was moved from her berth at Greenhithe, where she has lain alongside H.M.S. *Worcester* for the past fifteen years, to be berthed in the East India Dock. After the Press and other visitors had been briefed and their questions about the ship had been satisfactorily answered, the party was taken over to the ship. Some B.B.C. representatives were among the number and the television photographers went aboard the leading tug to take shots of the ship under tow. The party included Mr. Frank Carr, Director of the National Maritime Museum, Capt. W. H. Coombs, C.B.E., both of whom are on the Board of Governors of the *Cutty Sark* Preservation Society, and representatives from the leading newspapers. It was a cold wet morning but the *Worcester* was already bustling with life. A series of examinations was being held for the boys, but that did not prevent them giving the *Cutty Sark* a fitting send off. As the tugs took charge and the ship left her moorings the officers and cadets on the *Worcester* lined the rails and gave three very hearty cheers. During the inevitable waiting period they sang sea songs and chancies very effectively, and as the ship moved away she was followed by the strains of "Auld Lang Syne." The well-known tugs *Gondia* and *Java* were in charge, *Java* leading and *Gondia* lashed alongside. The tug owners, Ship Towage, Ltd., undertook the tow free of charge as their contribution to the Preservation Fund—a handsome gift. We were particularly interested to have the company of *Gondia* as the drawings of her lines have been a popular feature in our plans service for many years, and scores of models have been built from them. There was a good deal of fog and mist on the river, and at one time it was doubtful as to whether the tow could be undertaken safely, but conditions improved and all went well. The berthing of the ship was a delicate operation but was performed without a hitch. The work to be done on the ship in East India Dock will be in the hands of Messrs. R. & H. Green and Silley Weir Ltd., and under the direction of Mr. Joseph Rawlinson, C.B.E., Hon. Consulting Engineer to the *Cutty Sark* Preservation Society and Chief Engineer to the London County Council. The ship will first be very carefully surveyed, after which the terms of the company's contract for the work will be settled. Our readers will be interested to learn that we have been asked to take a set of photographs of mast, spar and rigging details to assist those concerned in the manufacture of the new spars which will be required in the restoration. Some of these may be made available for model makers at a later date.

OUR COVER PICTURE

The photograph reproduced this month was taken on the River Medway by A.E. Weightman, from the Ship Pier, Rochester. How charming even the everyday sights of the river can be and to those who love ships where could a fine Spring day be spent better than down on the river "messing about in boats." The picture shows one of Knight's tugs undergoing a "wash and brush up" at the company's repair barge, a small Norwegian ship of a type frequently seen on the river discharging paper pulp, the clock tower of Chatham Town Hall and in front of it the roof of Sun Pier. The tall building seen between the derrick and barge is the Granary, a favourite spot for seeing the Medway's motor and sailing barges.

Managing Editor

E. F. H. Cosh

Editor

Edward Bowness, A.I.N.A.

Advertisement Manager

T. C. Page

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WHEN a munificent Board of Trade decided that a laid down scale of provisions should be supplied to seamen in the British Mercantile Marine—as it was then called—the seamen concerned did not consider it was a generous allowance. Amounts of food, whether measured by avoirdupois or volume, were entered in the ship's articles with such exactitude that the scale became known amongst its recipients as the "pound and pint." Being one of those who lived on it for six years, from the age of fifteen, I can say that the allowance left us with a permanent hunger. I am writing of sailing ships, for when I "gave up the sea and went into steam" I found the food both excellent and plentiful. Perhaps I served in the right steamships.

It was not only the scarcity of food that was the trouble in the square-riggers; it was also unappetising. It was better for the officers at the captain's table, for their menus were usually more plentiful and varied than those endured by the seamen and apprentices. For the latter, breakfasts were varied from day to day with a concoction alleged to be curry and rice, baked beans, porridge—known on board as "burgoo"—and some evil smelling, stringy, ling fish. The curry and rice and ling fish took me several weeks to get used to, during which time the senior apprentices shared my whack. The "burgoo" was made eatable by the addition of condensed milk and sugar—if there was any left. Pity the poor Scot! There was no salt.

A tin of condensed milk had to last each of us three weeks. Some apprentices couldn't resist making holes in the top of the tin, lying full length on their backs in their bunks, and sucking at one of the holes until the tin was empty. For three weeks there was no milk in the coffee and tea of the tin-sucker.

There were no ice-boxes on the windjammers that I knew. Fresh meat and vegetables only lasted a few days out from port; and then we went straight on to sea rations. Salt beef, salt pork, bully beef and preserved vegetables and potatoes were our mainstay. Fresh potatoes usually lasted down to the tropics on an outward voyage, after which preserved potatoes were issued. The salt "horse," a composite name for the beef and pork, was always a little bad smelling when it came out of the cask. After the cook had done his best it was converted into a kind of salt leather. Occasionally, a more enjoyable taste, though still very salt, would be had from a recently brined cask of salt pork.

The most notorious cask of salt "horse" I remember—it was listed as beef—came on board a barque which had loaded a cargo of cement at Greenhithe on the London River for Santos, Brazil. We apprentices were given the job of hoisting it on board from the launch that had brought it alongside. We rigged a tackle up on the forward swifter in the fore rigging, and hauled it up over the topgallant rail. It was left to two of us to lower it down on to the deck, which we did without taking the fall round a belaying pin. The cask landed heavily and spurted its brine over the deck.

Our second mate, who was supervising a job on the fore deck, swung round. "Suffering Jehosophat!" he shouted "What the hell's that! A West Coast mortuary!" By West Coast he meant the West Coast of South America. Probably Callao where I once had the unenviable job of identifying the body of a dead seaman, which with several other decomposed bodies, was lying smothered in flies in the mortuary. The second mate's description of the smell from that cask was apt.

An SOS was sent to the carpenter who hurried along to tighten up the hoops and stop the stench. But the second mate

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PINT

A TALE OF THE
EXPERIENCES OF
AN APPRENTICE
UNDER SAIL

by

Captain

A. G. COURSE

wasn't satisfied. He had that cask up-ended and instructed the carpenter to remove the head while he went aft for the Captain. He wasn't giving a clean receipt for that, even though it was ship's stores. By the time the "Old Man" got to the main hatch he was holding his nose.

"Where's it come from?" he asked the second mate. A study of the documents accompanying it showed that its last home was a port in the North of England.

"If we weren't sailing tomorrow I'd send it back," our Captain said. "Secure that head on tightly and stow it as far forward as it'll go!"

We sailed, and the North Atlantic gales took our thoughts away from the offending cask. And then wet, cold decks turned to warmer, dry ones. We picked up the north-east trade winds, and work around the decks was resumed. This was a good time—at least our second mate thought so—to transfer the offending beef to the lee side harness cask on the bridge. The following wind was right for the job, the officers' accommodation being under the poop, and the bridge forward of it; the stench would be carried away from them.

The cask was rolled aft and hauled up on to the bridge. Then the carpenter removed the head and left me and a shipmate to transfer the pieces of beef to the harness cask. We stood to windward, grabbed each piece, and threw it over into the other cask. While this operation was being carried out we held our breath, turning to windward to fill our lungs in between the transfer of each piece. When the job

was finished the carpenter replaced the head. The worst operation was yet to come—emptying the brine down the chute through the forward hawse pipe.

It was when we were about to lower the empty cask into the fore peak that we noticed a Government arrow and something scribed near the bung. It informed us that the cask and its contents were returned stores from the Boer War eleven years before. We ate it later.

The tinned meat was much more popular. Commonly known as bully beef, it was called "Harriet Lane" on the windjammers because a lady of that name was reported to have disappeared into the machinery of a tinned-meat factory.

Bread on board was divided into two categories—soft tack and hard tack. The former was the white bread as it is known on shore. The latter were hard biscuits very similar in consistency to dog biscuits. Soft tack was made by the cook and issued three times a week in the form of a large size roll known as a "rooty." We each received one which, amounting to about three thick slices, was eaten immediately. Butter, or a substitute, and marmalade, were also issued in very moderate amounts which fitted in with the small amount of bread. Hard tack could be had in almost unlimited quantities. Known as "Liverpool pantiles" they could only be broken with a heavy mallet. When we were very hungry we would put these "pantiles" into a canvas bag and reduce them to dust by banging them with a wooden fid or mallet. We would then mix the dust with small pieces of salt pork, fat, and pea soup. This was known as "quakker hash." Joe, our West Indian cook, excelled at pea soup. The trouble was that it didn't come often enough.

Another method of using the "pantiles" was to break them up and mix them with molasses. As the voyage progressed they seemed to get harder and harder and became occupied by weevils: which were not always visible. On these occasions, when we were reduced to eating the "pantiles," a sudden hot taste would record the passing of a weevil. It was the only fresh meat we had; but I can't say that it was enjoyed.

Lime-juice was issued from the galley at noon

One apprentice finishes his tin of condensed milk while the other considers whether he shouldn't keep his for another day

Life on a sailing ship when in port, "sprucing-up" for an evening ashore



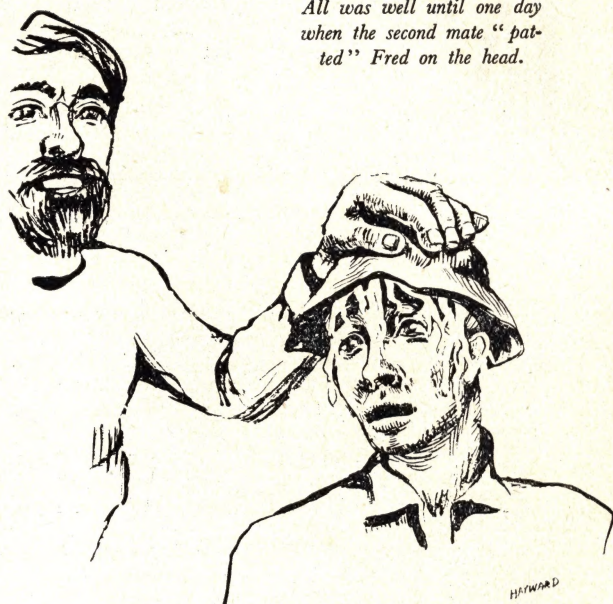
every day in British square-riggers. I think this was started on the twelfth day out. Its consumption was compulsory. It acted as an anti-scorbutic, its purpose being to combat the ill effects of the food. But in spite of it there were cases of scurvy in the sailing ships; and as late as 1916 the barque *Amulree* landed several cases of beri-beri at Liverpool after a long passage of 166 days from Rangoon. Lime-juice was not issued in American sailing ships, the food being considered of such a high standard as to make it unnecessary. The American seamen always called a Britisher serving in square-rigged ships on ocean voyages, a "lime-juicer" which in time became shortened to "limey"; a term which seems now to be applied to everyone from this country.

In British square-riggers breakfast and dinner (midday) were the only official meals. If supper was required, then sufficient meat and potatoes must be left over from dinner for converting into hash. The temptation to eat everything at midday was great; but the alternative of waiting twenty hours for the next meal was unthinkable. So some always went back. I am sure that dear old Joe must have added something to it—probably from the cabin food—for the hash that came back to the half deck (the apprentices quarters) was a larger amount than that returned; and it tasted very much nicer. Great care was taken in dividing it out. First it was divided, with mathematical precision, into six parts. Then one of us turned away so that we could not see it while a shipmate pointed to each part, asking for the name of its owner. It was as valuable as that!

"Manavilins" were titbits that sometimes came the way of the half deck, via old Joe, from the Captain's table. Pieces of pastry left over, and meat balls were the favourites. On rare occasions we got a small piece of pumpkin pie. Joe made it and I have never tasted anything more delicious. To qualify for this it was usually necessary to do some of the cook's chores; I have seen the son of a baronet—the baronetcy dated from the 13th century—peeling potatoes in the hope of a slight reward.

All cooks were not so kind as Joe. Even Joe would not allow us in his galley. "You young varmints have a habit of 'winning' things," he said. I think he was right. We had no means of heating in our half deck, and, with no admittance to the galley, could not get our clothes dried when down in the wintry seas of the roaring forties. Gale after gale filled the decks with water wetting us through until *all* our clothes were wet. With nothing dry to put on we crawled under our blankets for our watch below, with our wet clothes on, preferring to get up wet and warm to putting on cold, wet clothes when we went on deck again.

In spite of the cook's never-ending watch the apprentices did on occasions "win" something they could enjoy in the half deck. It was easier in the barques of 1,000 to 1,500 tons, where the rating of cook and steward was held by one man, as against the 3,000 tonners where a separate cook and steward were employed. If the apprentices were caught



All was well until one day when the second mate "patted" Fred on the head.

they were punished; but there was a certain amount of tolerance by the mates who had once served in that lowly capacity themselves. Appropriating food to augment the "pound and pint" was not looked upon as stealing by the apprentices; to them it was an opportunity that should never be missed.

One of the most difficult of these operations was "winning" the eggs laid by the Captain's fowls. They were kept in a coop on the bridge, and it was the junior apprentice's job to clean out the coop once a day. When he crawled out of the coop after completing his unenviable job, he usually found the officer of the watch there to see that any eggs laid were duly delivered. They were always difficult to conceal, especially in the tropics when a pair of dungaree trousers, a cotton singlet, and a linen sun hat were all that were worn. But there was a way that proved successful—at least, on one occasion.

One morning when we had curry and rice for breakfast, we were looking at the grey-green, soapy substance in the bottom of our plates when Fred came into the half deck.

"How'd you like a nice boiled, new laid egg?" he asked. He was greeted with derision and told that that kind of joke wasn't appreciated. Even when he produced the eggs out of his hat he was still eyed with suspicion, as if he was some sort of conjurer who would make the eggs disappear again shortly. His bright idea on this occasion was to stitch some pockets on the inside of the crown of his linen hat. If he could have seen what it looked like on him, when the eggs were fitted in, he wouldn't have tried it.

"Don't expect to get away with it every time," he said. "But sufficient unto the day etc. Now's the job to get them boiled; I don't go much on them raw."

His eyes lighted on the billy of coffee at the end of the table. This billy was used as a pot for tea or coffee, and was made out of an empty seven-pound marmalade tin. The top was cut round and removed, the edges banged flat, and a wire handle was fitted across the top for carrying it.

"Let the coffee cool down a bit," he said. "Then we'll lower the eggs to the bottom of the billy, take it along to the galley, and ask Joe to hot it up for us. I'll tell him the tale. Something about enjoying the curry and rice so much that we let the coffee get cold."

Although Joe did what he was asked, we had a suspicion that he knew what was happening, for what he shouted from the galley, about five minutes later, sounded like "They're done!"

We enjoyed those eggs, but when Fred backed, very carefully, out of the chicken coop several days later, with his strange head-gear clamped down hard on his head, the second mate "patted" him there in approval of the excellent way he had cleaned out the coop. He arrived indignantly in the half deck with yellow streaks running down the side of his face. Henceforth our eggs were but a memory.

Those egg-laying fowls thrived right through the voyage until our barque arrived in the tropics on the homeward passage. Then the occupants of the half deck had the biggest shock of their lives. Joe came to the door with a cooked chicken and the Captain's compliments. When the apprentices recovered Joe was asked for an explanation.

"Died suddenly!" he replied. The 'Old Man' thinks it might have had some disease."

"Couldn't have had a worse complaint than that salt beef we ate on the outward passage." Fred retorted.

That chicken made two enjoyable meals; better

still it gave Fred another of his brilliant ideas. It was early next morning in the coffee watch (4 a.m. to 8 a.m.) when Fred was trying to get some illicit sleep under the bridge, in his watch on deck, that the fowls disturbed him with their cackling. He looked up. The first sign of daylight showed their heads stretched out between the wooden bars of the coop. If his idea worked, the half deck menu would be greatly improved.

That evening, in the darkness of the second dog watch (6 p.m. to 8 p.m.), he went down into the fore peak in search of a long cane. Successful, he returned with it to the half deck and lashed a sail needle to the lighter end. The invention was then hidden under the bottom bunks until his next coffee watch on deck. On that occasion, at the same time as before, the fowls poked their heads through the bars to call for their breakfast. Fred stood underneath. He had already tried out his weapon for length. The second mate was pacing the poop in a valiant and successful attempt to keep awake. Fred waited till he reached the fore end of the poop and turned his back to walk aft. A quick jab up with the cane caused a chicken to drop. The needle had found a vital spot.

"Another of them chickens dead, sir," Joe told the Captain later that morning. And I can't see anything wrong with it, sir."

"Rather confirms my suspicions, Joe. But what disease could they catch at sea? It's over two months since we left port."

"Shall I cook it for the cabin, sir?"

"I don't feel like eating it Joe. Better give it to the boys again. They'll eat anything."

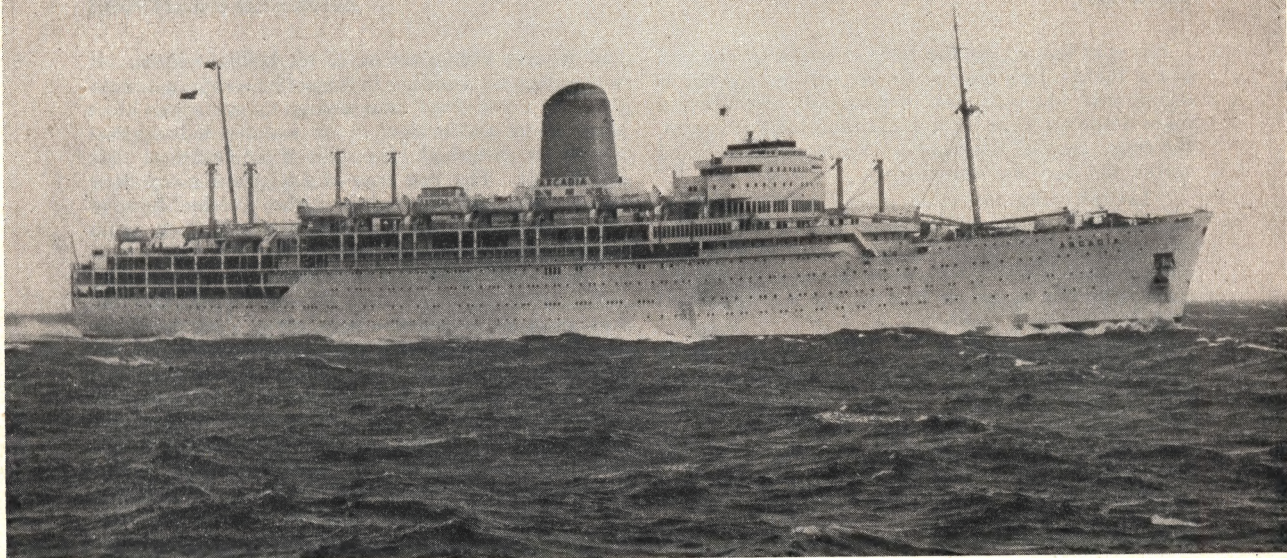
For the remainder of the passage at pre-arranged intervals—pre-arranged by Fred—the apprentices dined on chicken. It was the only "bright idea" I ever remember Fred getting away with.



Actual size reproduction of the model

the smallest sailing model in the world?

Some of our readers may remember seeing this tiny model at the "M.E." Exhibition about two years ago. The reproduction is made to the actual size of the model and we think the builder's claim that it is the smallest model sailing clipper in the world is fully justified. The yards can be swung on the mast so that the model will run before the wind or reach on a beam wind. As with normal square-riggers she is at her best with a quartering wind. She has a rather deep lead keel but otherwise is quite proportionate. She was built by Mr. C. V. Thompson, of the Hammersmith Ship Model Society, who is well known in London ship modelling circles. At the Exhibition he sailed his ship in a photographic development dish and it was very fascinating to see how she performed on various points of sailing. In action the skipper reminded one of the cherubs often seen on old charts blowing ships along.



SHIPS

in the news

ARCADIA

THIS new P. & O. liner, now on her maiden voyage is the company's largest ship, her gross tonnage exceeding that of the *Himalaya* by some 1,800, while her length is about ten feet greater. Built by John Brown & Co. (Clydebank) Ltd., the *Arcadia* was launched on May 14th 1953, and sailed from Tilbury late in February on her maiden voyage to Australia, a trip which the veteran *Maloja* had just made for the last time.

The main dimensions of the *Arcadia* are length overall 718 ft. 9 in., length b.p. 668 ft. 0 in., breadth mld. 90 ft. 6 in., depth to C deck 49 ft. 9 in. The gross tonnage is 29,734. The general cargo space amounts to 166,979 cu. ft. bale, while that for insulated cargo is but little less—158,500 cu. ft. Twin screw, double reduction geared turbines of 34,000 normal s.h.p. give a service speed of 22½ knots. As a result of their successful operation in the *Chusan*, the *Arcadia* is likewise fitted with stabilisers. Passengers numbering 679 in the first class and 735 in the tourist, together with a crew of 711 make up a total complement of 2,125 persons.

The new ship is the second P. & O. liner of this name. The first was one of the famous two-funnelled, four-masted quartette which dated back to 1887-88 when the company was celebrating its jubilee. These four ships were named *Victoria*, *Britannia*, *Oceana* and *Arcadia* and had a gross tonnage of 6,500/6,600, a notable advance of some 2,000 tons on

their predecessors. This first *Arcadia* went to the shipbreakers shortly after the commencement of the first world war. In 1895 the name *Arcadia* was also given to a William Watkins tug. Today the regulations concerning the naming of ships is now more strict, and this little vessel was last year renamed *Badia*, so that the name might be given to the new liner.

As regards external appearance the *Arcadia* shows many interesting variations from the *Himalaya*. Commencing forward, we find that a greater amount of the fo'c'sle is enclosed and that the bridge front rises more steeply. The funnel too, is of quite different shape, while aft there are even greater differences, for the step-down of the hull plating is much further forward in the *Arcadia*. This provides more deck space for the tourist passengers, who also benefit from a greatly lengthened promenade deck. A notable feature of the ship is the long sports deck which is situated amidships at boat deck level and extends well over half the width of the hull. At its forward end it is protected by the bridge structure, while at the sides there are continuous glass screens, which may, however, be folded back when the weather is hot. The accommodation throughout the ship is exceptionally fine, and the designs and colour schemes in the public rooms are particularly pleasing to the eye. The observation lounge deserves special mention and should prove especially popular with passengers. This room, situated on the bridge deck forward, occupies the full sweep of the bridge, and



Left : The new P. & O. liner "Arcadia" on her speed trials in the Clyde. Photo by courtesy of the P. & O. line
The curved top to the funnel is now painted black

Top : The ex-troopship m.v. "Empire Pride" now laid up in the Kyles of Bute. Photo by courtesy of the Bibby Line

from it one can see forward as well as over the sides. Here besides terrestrial and celestial globes there is a chart table, compass, gyro-repeater and other navigational recording instruments which will keep passengers informed of the ship's movements.

EMPIRE PRIDE

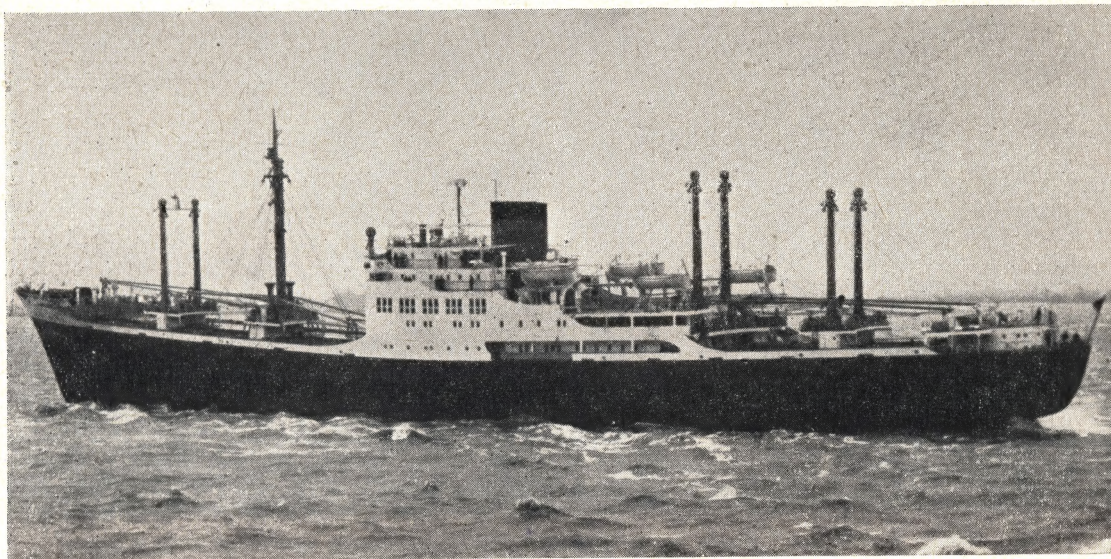
There have been a number of interesting happenings in the ranks of Britain's troopships. The famous old Bibby veterans *Dorsetshire* and *Somersetshire* have both been sold for scrap and the same firm's much newer *Devonshire* has emerged from a ten months refit at Fairfields with new troop accommodation of the highest standard. Her return has enabled the Ministry of Transport to dispense with the 9,248 ton m.v. *Empire Pride*, whose accommodation, it has been decided cannot satisfactorily be brought up to the same high standard. The ship has therefore gone to the Kyles of Bute to lay up, until a purchaser is found. The *Empire Pride*, which has always been managed by the Bibby Line, was built and engined by Barclay Curle & Co. Ltd., in 1941. She is 495 ft. in length overall, and 64.3 ft. in breadth, the depth being 43.4 ft. Twin screw Doxford type diesels give a speed of 15½ knots. Her appearance is unlike that of any other ship, for she was originally laid down as a cargo vessel, being modified for trooping when on the stocks.

It is interesting, therefore, to compare her appearance with that of some other motor ships built about the same time by Barclay Curle, and also with another steam driven pair which were built on the Tyne by the associated firm of Swan Hunter & Wigham Richardson Ltd. As stated, the *Empire Pride* was built in 1941. Earlier that year Barclay Curle turned out the *Empire Trust*, a motorship of 8,140

tons gross, which was later transferred to Holland to become in turn the *Rembrandt*, *Amerskerk* and *Rijnkerk*. This vessel has almost identical main dimensions, but is of the three island, five hatch layout with a split superstructure. There are two masts, one in the centre of each well and two boats aside on the after part of the superstructure. Four pairs of kingposts are fitted, one at each end of the bridge deck, the remaining two pairs being placed at the opposite ends of the third hatch, i.e. at the after side of the bridge and just ahead of the funnel. Other ships of the same design and whose dimensions are again almost identical are the m.v.s *Herefordshire* and *City of Chester*, both built by Barclay Curle in 1944, and the Swan Hunter built steamers *City of Bristol* and *City of Madras*. In the first named however, the bridge is 11 ft. longer while the two parts of the superstructure above are joined together. Thus we see that in the *Empire Pride* the main external changes made were the enclosing of the forward well deck, the addition of an upper and rather longer fo'c'sle, the raising of the bridge by one deck and the joining together of the two parts of the superstructure.

EMPIRE ELY

Another interesting vessel which the Ministry has offered for sale is the s.s. *Empire Ely*, a shelter deck type cargo ship with a tonnage of 6,112 gross and 9,867 d.w. and which has been under the management of Stott, Mann & Fleming Ltd., Newcastle. It will be remembered that during the war the Germans built three standard types of merchant vessels and that these were known as "Hansa" ships. The *Empire Ely*, which was originally intended to be the *Gottingen* of the North German Lloyd, belonged to the largest of these three groups and is



The new German liner "Schwabenstein," 8,955 tons gross, for the Far Eastern service

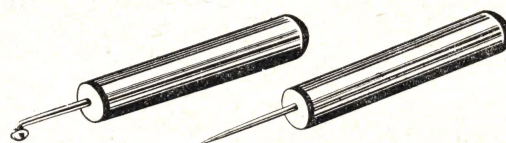
generally similar to the *Argenfels*, described on another page. Built by the Lubecker Flenderwerke in 1948, she is fitted with a 4 cyl. compound steam engine, designed to give a speed of $10\frac{1}{2}/11$ knots and has the following main dimensions: length overall 476 ft. 0 in., breadth 60 ft. 7 in., depth 28 ft. 9 in. There is only one other ship of this type to be found under the Red Ensign, this being the Ministry owned, Ropner managed *Empire Nene*.

SCHWABENSTEIN

Last summer the Hamburg-Amerika Line, and the North German Lloyd revived their joint service to the Far East, the initial sailing being made by the *Werrastein*, a newly built cargo ship of 6,737 tons gross. Up till recently the vessels used have had accommodation for only a few passengers. At the beginning of this year, however, the *Schwabenstein* was delivered, and on February 5th made a call at Southampton while on her maiden voyage from Bremen to Yokohama. The first of a new and larger type, she is of 8,955 tons gross and has a d.w.c. of 9,100 tons. Accommodation is provided for 86 first class passengers and the ship thus becomes the most important passenger liner owned in Germany. Built by the Bremer Vulkan yard in the short period of six months, she was launched as recently as October 24th. The main hull dimensions are length b.p. 492.1 ft. and breadth 63.7 ft., the draught being 26.2 ft. Two M.A.N. type diesels drive a single screw, through Vulcan couplings, and give a service speed of just over 17 knots. The *Schwabenstein* is owned by the Roland Line of Bremen, an associate of the North German Lloyd. Of the six ships in this new class—all due for delivery in 1954—the Roland Line will own three, the others being the *Hessenstein*

and *Bayernstein*. The remaining three will be owned by the Hapag and bear the names *Hamburg*, *Frankfurt* and *Hanover*. Their previous *Hamburg*, a four year old motorship of 2,399 tons gross is now known as the *Coburg*, the name having been transferred to the new ship, which is due to make her first sailing in April.

10/- hints...



Each month "Ships and Ship Models" will offer a prize of 10s. for each idea published helping ship modellers in their craft. Please send your idea to The Editor, "Ships and Ship Models," 19-20, Noel Street, London, W.1.

This month's idea will help in the rigging of ship models and comes from Mr. A. W. Purchase of Bishop's Stortford who suggests the use of ordinary pins fixed into handles (see illustration) for pushing and hooking the threads in the more difficult jobs.

In the first sketch the pin is just pushed into the handle and the head bent over to make a hook or pusher. In the second illustration the head is removed and the end fixed into the handle leaving a useful point for the very small jobs that occur at this stage of ship modelling.

Master in Sail

INSTALMENT FOUR

of the book, copyright

PERCIVAL MARSHALL

Price 12/6.

CAPTAIN JAMES S. LEARMONT

On his first voyage as master in sail, Captain Learmont began to put into practice the improvements for living conditions aboard sailing-ships which he had been planning all those years of his long apprenticeship from his start as a boy of twelve. The result was a cheerful and contented crew, no complaints, and not a man lost. The Brenhilda put in at Falmouth after an unusually fine passage home, and the crew that were paid off were the same who had signed on for the voyage. This, in the early years of the century, was no mean achievement.

MY first command took up all my attention and I had not much time to think of what leaving home really meant. I had reached the height of my ambition at twenty-six by getting command. I was now earning sufficient to maintain my wife and family in comfort, after two years on thirty shillings a week as junior officer in liners, so that in itself was a change.

Day and night I was around the decks seeing that every sail was doing its best. The *Brenhilda* was now a barque but still had the mizzen upper topsail and topgallant yards on board. Remembering how the schooner improved by having a boom on the square sail, I rigged up the mizzen topgallant yard as a passaree boom. This stretched the foot of the foresail taking away the arch, thus making a solid wall of canvas from deck to royals which was pleasant to look at. Curves may be artistic but do not make a driving sail. A gradual increase in mileage was my reward. Thirty-one days out from Shields we crossed the Equator, and thirty-nine days later we arrived at Valparaiso.

On or about June 20th, when in the vicinity of the River Plate we were hit by a very severe "pampero," a storm so called because it is generated on the pampas of the Argentine by the hot north winds meeting the cold south polar winds. The wind had been fresh to strong from the north west with heavy rain, and unsteady in force and direction. About midnight the darkness was "as black as the Earl of Hell's riding boots"; suddenly with a flash the whole sky lit up, the lightning making it a mass of fire. It was really terrifying. I hove her round, shortened sail and waited, and that wasn't long. It came out of the south-west in a terrific squall, the deluge of rain drenching everyone. Even under only two topsails the *Brenhilda* lay down to the blast until her starboard rail was under water. In about six hours the pampero had blown itself out and the wind

went into the westward. The suddenness of these storms is the danger; there is only the lightning to warn you, the barometer cannot as they come down so quickly. Many sailing ships were lost or damaged by pamperos.

Between the Plate and the Falklands the *Brenhilda* in 18 hours covered 288 miles. This is an average of 16 knots and I do not believe that any sailing ship could exceed this speed. Everything was in our favour, a strong NW. wind, smooth water and a ship that hadn't a straight plate in her. As I stood on the weather side of the poop and looked along the rail, she was literally lifting out of the water under a heavy pressure of canvas. This distance was between observations, not guess-work.

For some unknown reason, the continent of South America had a great fascination for me, especially the southern extremity. I read and re-read from Findlay's *Sailing Directories* all I could about it. Everything interested me from Magellan to Fitzroy.

After we passed the Plate the weather grew colder as it was now mid-winter. As a welcome, if it could be considered as such, the albatrosses having finished with their convoying of homeward-bounders found us and again headed south, their nests of tussack grass on the Falklands and South Shetlands left empty for the time being. Later they were joined by the mollyhawks and cape pigeons. Nearing the Falklands in the hours of darkness, especially if the weather is not too stormy, you get a good fix from the penguins as their squawking is a sign that you are coming within fifty miles or less of their rock-bound coasts. As the West Falklands are unlit they, the penguins, are a useful guide to the mariner.

On the morning of July 18th, I got a bearing of Aconcagua, a peak of the Andes: at the

MODELLERS PLEASE NOTE

In response to many requests from readers who enjoy our instalments of Captain Learmont's fine book, "Ships and Ship Models" is preparing a set of hull lines for each of his three principal commands, the full rigged ships Brenhilda and Brenda and the four-mast barque Bengairn. These will be reproduced in our magazine when ready and we hope will give an added interest in the story to our modeller readers.

(Continued from March issue, page 91)

same time I took an observation of the sun ; with the latter I obtained a position line (a line at right angles to the sun's bearing) and when this was used in conjunction with that of the bearing of Aconcagua I had a perfect fix. That evening at sunset we arrived at Valparaiso fifty-seven days from Ushant and seventy days from Shields. This passage was recorded in *Fairplay* of 1902 as the fastest of the year.

Next day we went into moorings, and discharging commenced on the following day.

Although kept busy, things were very pleasant, the crew were contented and I was able to enjoy a bit of ship visiting in the summer evenings. As I had a good steward I was able to return the hospitality. We had a very nice tally clerk and he invited me to dine with his family one Sunday. They had roast mutton literally stuffed full of garlic ; to be polite I ate it but it was just a bit difficult. My drinking water, I found, caused much amusement amongst his children as everyone in that country drinks wine. After settling up my business with the agents we sailed for Gatico.

Whilst at Gatico I arranged to give the apprentices a picnic at Cobija about three miles to the south. This at one time had been a flourishing port of entry for Bolivia, but the opening of the Antofagasta Railway had rendered it obsolete. After breakfast we started away with the boys pulling, and on landing we were in what was an entirely deserted town. I thought it was the strangest feeling that I ever experienced. The houses, hundreds of them, were all adobe, and the only living creatures in the place were the chinchillas. There must have been thousands of them but we did not disturb them, only watching as they ran in and out of the empty houses. We just wandered around, bathed on the very nice beach, built a camp fire on which the boys cooked dinner and tea and returned to the ship in the evening under sail.

North of the anchorage at Gatico there was a dangerous reef, on which were the remains of the ship that had gone ashore when leaving, I believe she was the *Rhosdhu*. Having decided to sail out I made the necessary preparations. Before heaving short I sent the boat with two hauling lines to the rocky point that lay on the south side of the anchorage, that being the weather side. Taking the end of the hauling line on board I hove the ship to windward before the morning breeze came away ; when it did I had steam ready to get our anchor. As soon as the anchor was away the topsails were hoisted, courses dropped, the *Brenhilda* started to get away, the boys cast the line off the rocks and we weathered the dreaded reef easily. The line had prevented her from making leeway. Once clear we were safe, so I backed the mainyard and picked the boat up.

After a passage of seven days we arrived at the Asia Islands, twenty miles south of Callao, to load guano.

This was the first time that a ship had loaded there. It was not a very inviting picture ; an open anchorage, a few rocks and Asia Island, about two miles from east to west and one mile from north to

south, without a scrap of vegetation. Finding or "making" a guano deposit was not an easy job. First you found its latitude and longitude by inspection of Norie's Tables, as the small scale charts generally found in sailing ships did not show all the small islands or points named in your instructions. A further difficulty was that owing to the constancy of the prevailing southerly wind, if you passed your destination in a ship ballasted only for a passage to the northward you could not get back to the southward against wind and current. In two cases known to me ships missed the places to which they were ordered and fetched up in Australia after being in the Overdue List. The only way to make certain of making your correct anchorage was to heave to, well to the south, if nearing it in the hours of darkness.

The profits from guano must have been high for it was quite common to pay four pounds ten shillings a ton from the Chinchas to the U.K. or Continent. Meanwhile millions of tons had been taken, and the big deposits were worked out. In the early days Peru had not had much, if any, benefit from the export of guano. The concessions were granted to contractors in rather a haphazard way. After the disastrous war with Chile in which Peru lost much of her territory, including the rich deposits of nitrate in Tarapaca, and the port of Iquique, the country was in a bad way. The land was still rich, with mines of gold, silver, copper and other valuable minerals, but it was undeveloped. International financiers came to her aid, forming the Peruvian Corporation which took as security for loans the railways, the mines and all the guano on the coast of Peru.

Asia Island anchorage was not very comfortable but we managed very well. I had had the holds prepared for loading on the passage north so we were ready to start as soon as the anchor was down. Owing to the chemicals in it, guano must be kept away from all ironwork or it will take all the paint off. Old sails were used for this and we festooned the sides of the hold with them.

Earthquakes were very frequent in that region. They were rather severe and caused the ship to vibrate considerably. Ashore they felt it more as the earth tremors were more distinct and the unfortunate labourers would sometimes turn out in the night as the shocks caused the contractor's bell to ring as though they were being called to work. He thought it a great joke, but I did not because I was not accustomed to earthquakes.

In due course we were loaded and I received instructions to proceed to the Channel for orders. As we started to unmoor it was found that the stock of the first anchor that we hove up was broken presumably by the earthquake shocks. I then noticed that the remaining anchor was not holding and the ship was drifting down on a dangerous rocky point. Canvas was set hurriedly and she just cleared the point by a very narrow margin. On getting the second anchor we found that it also was broken at the stock. In view of our having been so near to the rocks I wanted to make certain that the ship had not

suffered damage, so anchored again in smooth water where the stockless anchor was sufficient to hold her. We sounded the bell but found no damage and next day, December 12th, we sailed away from Asia Island for the Channel.

We had been nearly five months on the coast, but we had not lost a man, there was never a complaint from the crew and they had worked well. On my part I used every opportunity to get them fresh provisions. In this I was helped by my owner who always encouraged me to buy outside of the recognised practice of getting everything from a ship-chandler. I went off to the P.S.N.C. coast boats and bought food whenever possible. The traders of course did not give receipts but my owner did not expect them; just put down how much I spent and he credited me with such expenditure.

The coasting steamers of the P.S.N.C. resembled a market place. Traders hired deck space and one could buy almost anything. Starting from the southern ports of Chile they would have a stock of every product you could imagine from a canary to a cow. Turning round at Guayaquil they would restock with tropical products, mostly bananas, melons and sweet potatoes, to sell on the way south, with perhaps a few parrots. The boys whom I took in the boat had to be lively, as the buyers from shore in their fleters and challoopas were not very particular in their rush to get up the gangway. I used to leave two in the boat and take two with me to collect my purchases, which they lowered by a small line into the boat. Meanwhile the coast boat was discharging cargo from her side ports. In some cases they would do five ports of call in a day.

We had a most unusually fine passage home. It being the height of summer we had long fine days and fine weather rounding Cape Horn, passing Staten Land twenty-nine days out. On our reaching

30 deg. S. in the Atlantic we had a few days of calms, then the wind came away NNE. very light, and I went on the port tack standing to the east looking for the SE. Trades. In three days I did not make one mile of northing but at last the wind went into the NE. I put her about and gradually the wind proved to be the Trades. The passage continued uneventful and we never took in the topgallant sails on account of wind. In due course we arrived at Falmouth in the month of March, 96 days out. Two days after giving notice of our arrival I received orders to proceed to Hull for discharge.

In Falmouth with us was the 4-masted barque *Bannockburn*, laden with wheat. Her owners and the owners of the cargo arranged that she should tow from Falmouth to Hull. We had to sail, but this I expected as my owners were not the ones to spend money unnecessarily. Winds favoured us and we made a good passage up Channel and through the North Sea. When I decided to haul her in for the Humber I was lucky in finding Sirius on my beam and near her meridian; from a good observation I obtained a reliable position line which was a check on both my compass course and position. As I proceeded on my course with full confidence a tug closed in and offered to tow me to Hull for seventy-five pounds; his offer was refused and we quickly left him astern.

When we arrived at the mouth of the Humber it was blowing hard from the SE. and I hove her to, to get the pilot on board. Later we anchored in the Roads without any difficulty.

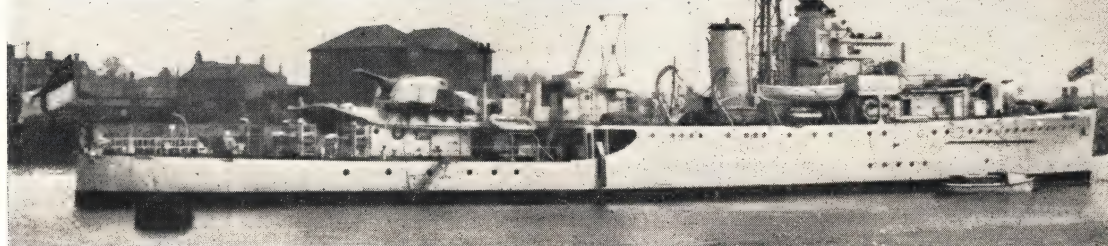
On the following tide the *Bannockburn* arrived; we had, under sail, beaten her by a day on the passage from Falmouth to Hull. My first voyage in command was completed. The crew including both mates were paid off, being the same men who had signed on at South Shields for the voyage.

Ship "Brenhilda". Note the main skysail yard. Fore royal yard is on deck



Naval Notes and Jottings

BY P. A. VICARY



H.M.S. "Stork" at Lowestoft in 1946

Naval Photograph Club

H.M.S. *Stork*, Reserve Fleet frigate, while under tow by the naval tug *Envoy* from Portsmouth to Londonderry broke adrift in the Irish Sea in a 50 mile an hour gale. The tug had to put into Plymouth owing to bad weather, but left next day when the weather had moderated. When it was found that the *Stork* was adrift from the tug a radio message was sent to C.-in-C. Plymouth, and the destroyer *Savage* which was on passage to the Clyde was ordered to join the tug in the search for the *Stork*; she was eventually picked up and taken in tow again and has been taken to Liverpool for repairs. The photograph shows the *Stork* as senior officer's ship North Sea Fishery Patrol at Lowestoft in 1946.

The fast anti-submarine frigate *Virago*, 1,710 tons has been testing new life-saving equipment in Arctic waters. Amongst the equipment is a new inflatable tented dinghy. Each dinghy which can accommodate twenty men, is stowed uninflated in a pack eight feet long. A smart blow on a percussion cap is all that is needed before the dinghy is put into the sea. A container of carbon dioxide inflates the dinghy in ten seconds. A 54 in. mast is then erected and a cover of rubberised cotton fabric is drawn over it and buttoned down to form a tent affording protection from exposure. Each pack contains rations and de-salting kits, distress signals, cigarettes, matches, and playing cards. It is proposed to add a small Solar still for extracting salt from sea water by the action of natural light. The still, which is a plastic globe can produce $2\frac{1}{2}$ pints of drinking water daily.

H.M.S. *Warrior* has completed her refit at Portsmouth and has been fitted with a lattice mast in place of her tripod, and her multiple pom-poms have been replaced by Bofors guns. She recently flew on her aircraft and proceeded to the Mediterranean.

The seaward defence boat *Camberford* has just been completed by Vospers and her appearance resembles

the "Bold Pioneer" class of F.P.Bs, she has twin funnels and lattice mast and is armed with a 40 mm. Bofors gun mounted forward and carries depth charges aft.

The frigates (ex-Hunt class destroyers) *Blackmore*, *Calpe* and *Exmoor* are to be handed over to the Danish Navy and will be renamed *Esbern Snare*, *Rolfe Krake* and *Valdemar Sejo* respectively. The *Beaufort* and *Zetland* are refitting on the Tyne and are to be handed over to Norway. They have been fitted with lattice masts, and will be renamed *Haugesund* and *Tromsø*.

H.M.S. *Vidal*, the new surveying vessel of 1,800 tons has been carrying out trials from Portsmouth, and is the first surveying ship to be fitted with a flight deck to carry a helicopter, which she flew on from the R.N. air station Gosport. She has a miniature hangar, and also she is the most modern chart producing unit in the world. She has a complete lithographic plant capable of printing her own navigational charts while at sea. Installed in the ship are two printing presses, one manual and one rotary machine, and any regulation size chart can be printed in any part of the world in which she is working. She can also produce "Notices to Mariners" and other navigational papers which can be distributed to ships and commands in any particular area. She is 315 ft. long with a beam of 40 ft., and she has a deck arrangement designed to make possible the flying off and flying on of a helicopter for air survey photography. She also carries three surveying motor boats equipped with echo sounding apparatus. She has special air conditioning plant for operating in the tropics or at the Poles. The *Vidal* is diesel driven, her machinery being designed and built by Chatham dockyard. She is named after Vice Admiral A. T. E. Vidal who was employed on surveying duties from 1815 to 1846. Her first commission will be on the West Indies Station.



Wooden Shipbuilding in Denmark

By David R. MacGregor

Author of "The Tea Clippers", price 25/-

After the sheer strake had been fixed, the height of the bulwarks was marked off on the head of each top timber that was serving as a bulwark stanchion, and the run of the main rail was faired in with a batten nailed to the outside of the timbers, as shown in the photograph. The timber heads were sawn off as much as they projected.

Meanwhile the planking had commenced. First the garboard strake and bottom plank were laid and then the topsides. The planks crept towards the bilge from above and below. The bilge planking was left to the last and was perhaps the most difficult, excepting possibly the garboard strake. The steam chest used for heating the planks can be seen on the starboard quarter of the galease, see photograph on this page.

I did not watch any planking in progress at the Ring-Andersen yard but the method used at Mr. Jorgensen's yard at Thuro was probably the same. The set of nine photographs on pages 134 & 135 illustrating the fixing of a plank were taken at the Thuro yard.

Each plank had first to be softened by being

heated in a long wooden box, some 30 or 40 ft. in length and about 2 ft. square. Steam was forced into this box by an antiquated boiler, fed with chips from the yard. In this way the planks became relatively pliable. After a certain time, the door at the end was unbarred and the plank drawn out. Three or four men, using sacks to protect themselves, hoisted



Above : wrestling with a rapidly cooling plank in the hold during the operation of laying the ceiling



Left : Planking in progress showing garboard strake and bottom plank in position and topside planking commenced. Steam chest is just visible on extreme left. Some stringers are still in position at the bilge

Continued from page 97 March issue



1



2



3



4

the plank on to their shoulder and trotted across the yard and up on to the staging surrounding the hull.

In the series of photographs illustrating the planking, No. 1 shows the after end of a plank which had come straight from the steam chest clamped to a frame while the other end was being raised off the staging. This end was pushed towards the hull as far as it would go, as seen in No. 2, and then it was clamped in that position. Working again from the after end the gang of three men moved along, and with the aid of clamps, wedges and hammers, closed the gap between plank and frames. No. 3 shows a small block of wood being spiked to a frame. Between this and the lower edge of the plank a wedge was inserted and by driving it home the plank was forced to adopt the curve of the frames. The forward end was still causing trouble, as seen in No. 4. The men had to work fast before the plank lost its elasticity. By No. 5 most of the plank had been conquered. No. 6 shows some of the ways it was held in position before the fastenings were hammered in.

An electric drill, at the end of a long rubber flex, was used to bore holes through plank and frame for the 6 in. galvanised iron fastenings. The man nearest the camera in No. 8 was using the drill. The next picture, No. 7, shows the holes being countersunk by hand. No. 8 shows the fastenings, which had been lightly tapped into each hole, being driven in with seven pound hammers. The last picture shows



5



6

plank in position, while the heads of the fastenings are being driven into the countersinkings.

Finally the ceiling and decks can be laid, the bulwarks completed, hatch coamings and certain deck erections finished. Considerable skill is required whilst laying the ceiling planks. Due to the outer planking being already in position, clamps are difficult to use. On the occasion the photograph was taken which shows two men wrestling with a rapidly cooling plank down in the hold, heavy struts were used as levers to hold the planks down and press them into place where they were temporarily fixed before the real fastenings were hammered in. The particular plank shown in this photograph being fitted had twice to be taken out to have a mere shaving removed by the adze in the semi-darkness right in the eyes of the boat, before it finally fitted at the third attempt and was coaxed and hammered into place. After the hull had been caulked it was planed all over to ensure absolute fairness for the subtle curves of which it was composed. By the time it had been painted it was ready for launching.

In conclusion I should like to express my thanks for all the interest shown and the co-operation given by Mr. J. Ring-Andersen, Frode Holm-Petersen and Captain K. M. Lorentzen.



7



9



8



Above left : Inside gallease looking forward showing keelson in position

Above right : The after framing. Note that deadwood from keelson to stern-post still has to be fitted



Left : The finished hull ready for launching

Below : The launch. The party on board have every confidence in the new ship

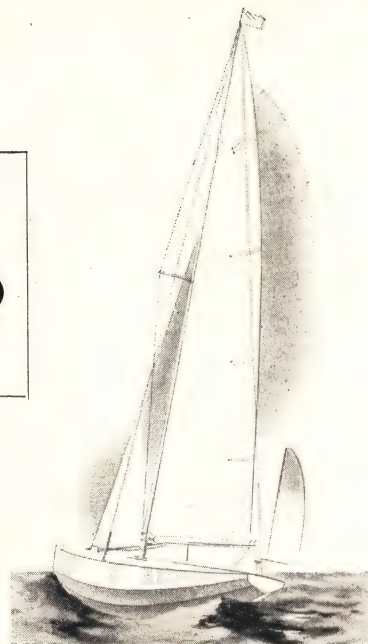


The "A" Class Sharpie

★ and how to
build her

"K.N."

BY
H. B.
TUCKER



ON the full-size body plan, draw lines on either side of the centre line and parallel with it. The inner line, $\frac{1}{2}$ in. out from the centre line, represents the rabbet line along the keel, and the second one, $\frac{3}{4}$ in. out, the keel width. This, of course applies solely to the forward and after members, *not* to the centre member which is wider. The latter will be dealt with separately in due course as applied to Sections 5, 6 and 7.

Take a tracing of one of the sections forward, say No. 3, ruling in the datum line and also the L.W.L. (Fig. 8). Mark in the width of the keel and the position of the rabbet line.

Our bilge strake is to be made of solid pine $\frac{1}{2}$ in. thick, so start by putting this in. In passing it will be noted that we are now working back in the reverse order to that in which the parts go on to the boat. The bilge strake is the last to go on.

Bottom and topsides are being planked with 3 mm. three-ply, so rule these on to our plan. The bottom planking goes down as far as the rabbet line.

Having removed the skin it might, perhaps, be better to revert to the order in which the frame members are assembled. Our keel is $1\frac{1}{2}$ in. wide \times 1 in. thick, and we have its half width already marked in, so this can be put in. The thickness is 1 in. It will be seen that the skin lying in the rabbet overlaps the keel for a good $\frac{1}{4}$ in. which will give sufficient hold.

Next draw in the lower chine. Both chines are made of pine $\frac{3}{4}$ in. \times $\frac{1}{4}$ in., and lie respectively in the planes of the bottom and topsides. Draw a line $\frac{1}{4}$ in. from the inside of the skin at the chine parallel with the bottom. From where this meets the bilge strake, measure the $\frac{3}{4}$ in. distance and put in the lower edge. It will be seen that the lower outer corner will have to be bevelled off for the bilge strake. Since the chine angles are constant right along the boat, you will be able to measure from your drawing and then set a marking gauge and run a line along one side of the chine beam. This will enable you, when you are ready, to plane the beam to its correct section. Incidentally, you should get the $\frac{3}{4}$ in. \times $\frac{1}{4}$ in. pine in seven feet lengths to allow for some spare when it comes to fitting the chamfer at the forward end where it butts against the stem. If you have a few inches in hand, you can re-cut if necessary.

The upper chine is put in similarly. Finally there is the inwale. This is also of pine but is $\frac{3}{4}$ in. \times $\frac{3}{8}$ in.

Inwales are often known as "shelves" since they support the deckbeams and deck. It was mentioned that the deck is also to be of 3 mm. plywood, and also that it is to be dropped inside the topsides, hence our inwales must be the thickness of the plywood below the top of the sides.

A line is drawn next from the top of the inwale inwards to meet a line drawn perpendicularly upward from the end of the datum line, which must be ruled in. The centre part of the drawing (Fig. 8) now gives you the shape for your mould, or rather for one half of it. However, the mould itself is in two parts. These are the lower part which becomes part of the framework of the boat, and the upper part which is simply a template to bend the sides round. The depth of the lower part, which is known as the "floor," is up to the top of the lower chine beam (or "chine stringer").

The purpose of the floors is to strengthen the bottom of the boat and resist the side waring of her lead keel, and generally act as a brace to the whole structure. Though the whole template is loosely spoken of as the "mould," this, therefore, comprises the floor and the mould proper (or upper part).

Sections 1-3, 8-11 are dealt with in exactly the same way. The floors should be selected pine $\frac{1}{4}$ in. thick, but the mould proper need not be such good quality wood as it is not a permanent part of the yacht.

Section 10 is exactly similar except for the skag, which is mortised through the backbone as explained later. This makes no difference to the floor and mould.

The midships sections, Nos. 5, 6 and 7, are different in that the keel member is wider being the top layer of the fin. This is not joggled into the floor but the latter fits on top of it (Fig. 9). Along the part of the fin where the width of the fin is over 1 in., the rabbet line is along the garboard angle, but where the fin is less than 1 in. the rabbet line keeps the same as along the forward and after members of the backbone

(Continued from March issue page 103)

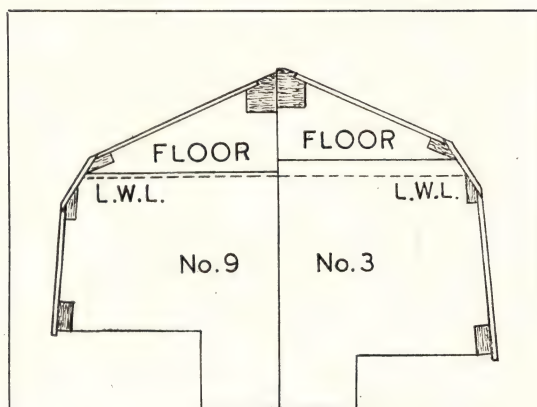


Fig. 8 : Moulds toward either end. Note floors are joggled on to keel

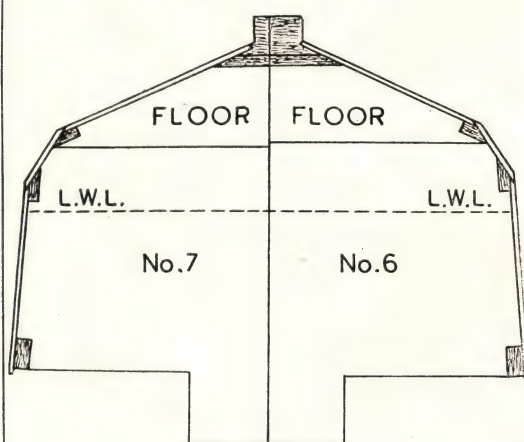


Fig. 9 : Midship moulds. Note floors fit on top of keel



Fig. 10 :
Mould
at stem



Fig. 11 :
Inner
transom

(i.e. $\frac{1}{2}$ in. from the centre line) as on section 7.

In order to understand how the template is made for section 12 some explanation is necessary. When the chines are being fitted, the lower chine goes on

first and is full width for its entire length. When in the ends of the boat the chine lines approach too near together for both chine beams to be kept at full width, the upper one is chamfered away on the underside until the upper chine line is in its correct position. Similarly, when in the stern there is no room for the inwale, this is chamfered away on the lower side until it runs out altogether on top of the upper chine beam just aft of section 12.

Finally we have to make our drawing for the inner transom. This is of $\frac{1}{2}$ in. pine, while the outer transom is of $\frac{1}{8}$ in. wood, so the forward face of our inner transom will be $\frac{5}{8}$ in. forward of the boat's transom (after face). We put in a line on our sheet plan when ascertaining the position for the cross-piece supporting this. Owing to the rake the tongue coming down to the datum line is longer than usual and because of the width of the boat the tongue will only be 3 in. wide instead of the usual 4 in. Also due to the rake the chine angles in our drawing will be slightly different, but this will not affect the actual angle of the chine beams since the rake takes care of this. It will be noticed that I have marked on the diagram (Fig. 11), the curve to which the upper edge of the transom will eventually be cut to accommodate the deck. This should be put on to the drawing as it will facilitate matters when the boat is off the moulds and being prepared for decking. The piece of wood between the keel and the lower transom is very small and likely to be carried away during our operations. It will not matter greatly if this happens so long as the parts are correctly positioned, and a slip of wood can be glued in just before the bottom goes on, in order to fill the gap.

Separate drawings should be taken for each mould, on pieces of paper large enough to make the two sides (i.e. the whole mould). Rule the L.W.L. and top of the floor right across the paper. Fold exactly up the centred line, and cut out the double sheet with scissors. This gives a complete template for the whole mould up to the datum line.

Now if we pasted our templates as they are on to the wood that is being used for moulds and floors, cut out the whole shape, and subsequently divided it into moulds and floors by sawing along the dividing line, our templates would be rendered incorrect. If you saw directly along a line, you lose the width of your saw-cut, and there is further loss when you clean the saw-cut up.

Hence every time parts of a boat are cut out, the correct procedure is to saw just outside the line, and then clean up sharp to the line.

The piece of $\frac{1}{4}$ in. wood which is to form one of the floors should have its top edge planed dead straight, and be glass-papered both sides, so that it is ready to become a part of the yacht's structure. The adjacent edge of the wood which is being used for the upper part of the mould must also be shot dead straight, but the wood need not be finished off in the same way since this is merely a part of the temporary jig (or former), and will have served its purpose when the boat is taken off the moulds.

(To be continued)



THE 'DARING' CLASS

with notes and a sectional drawing of
H.M.S. DECOY

BY LAURENCE DUNN

Broadside view of H.M.S. "Daring" under easy steam.

Admiralty photo

H.M.S. *DECOY*, the first of the *Daring* class to be launched, is the sixth of her name to feature in the Royal Navy. Built and engined by Yarrows of Scotstoun, she was laid down as H.M.S. *Dragon* in 1946. This name was changed, however, while she was still on the stocks and the ship was launched as *Decoy*—on March 23rd, 1949, her sponsor being Mrs. Dugdale, wife of the then Parliamentary Secretary to the Admiralty. The vessel was accepted into service at the end of April, 1953, having cost approximately £2½ million.

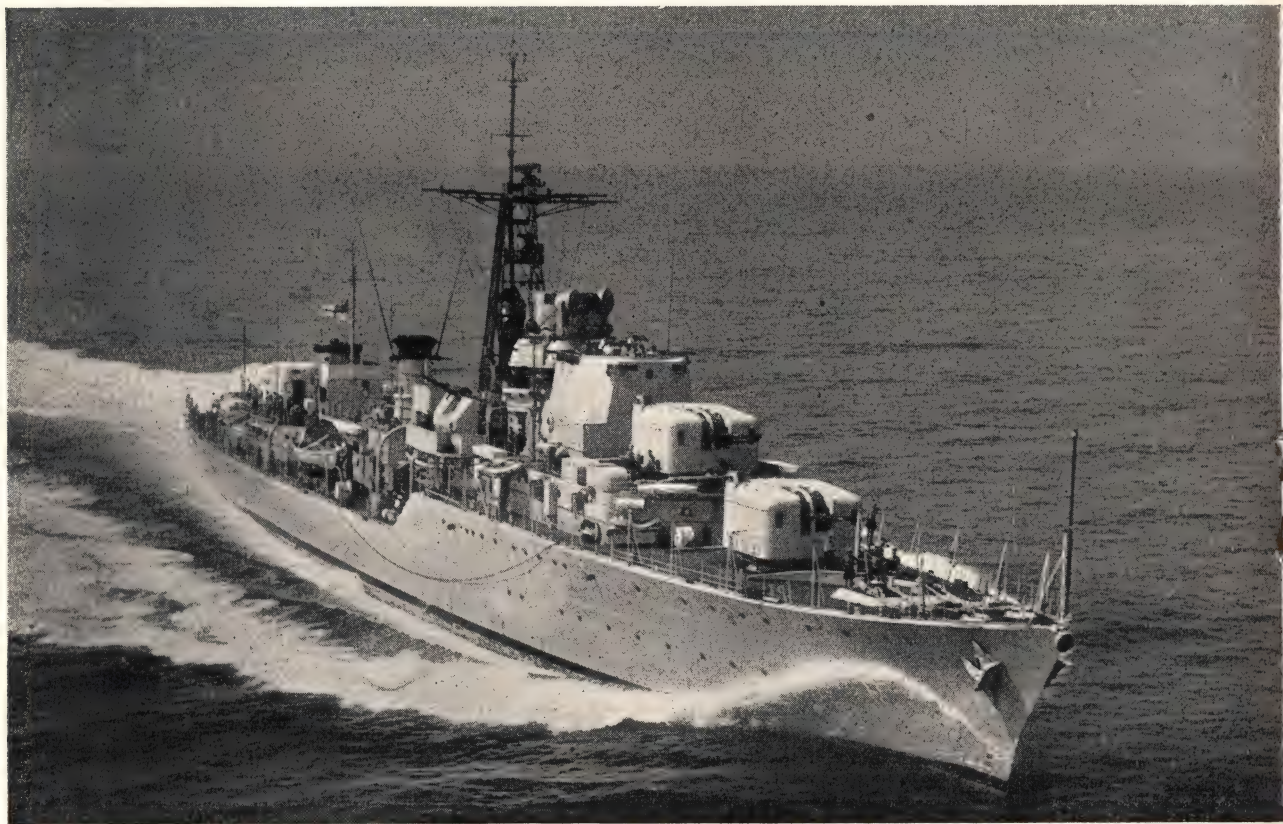
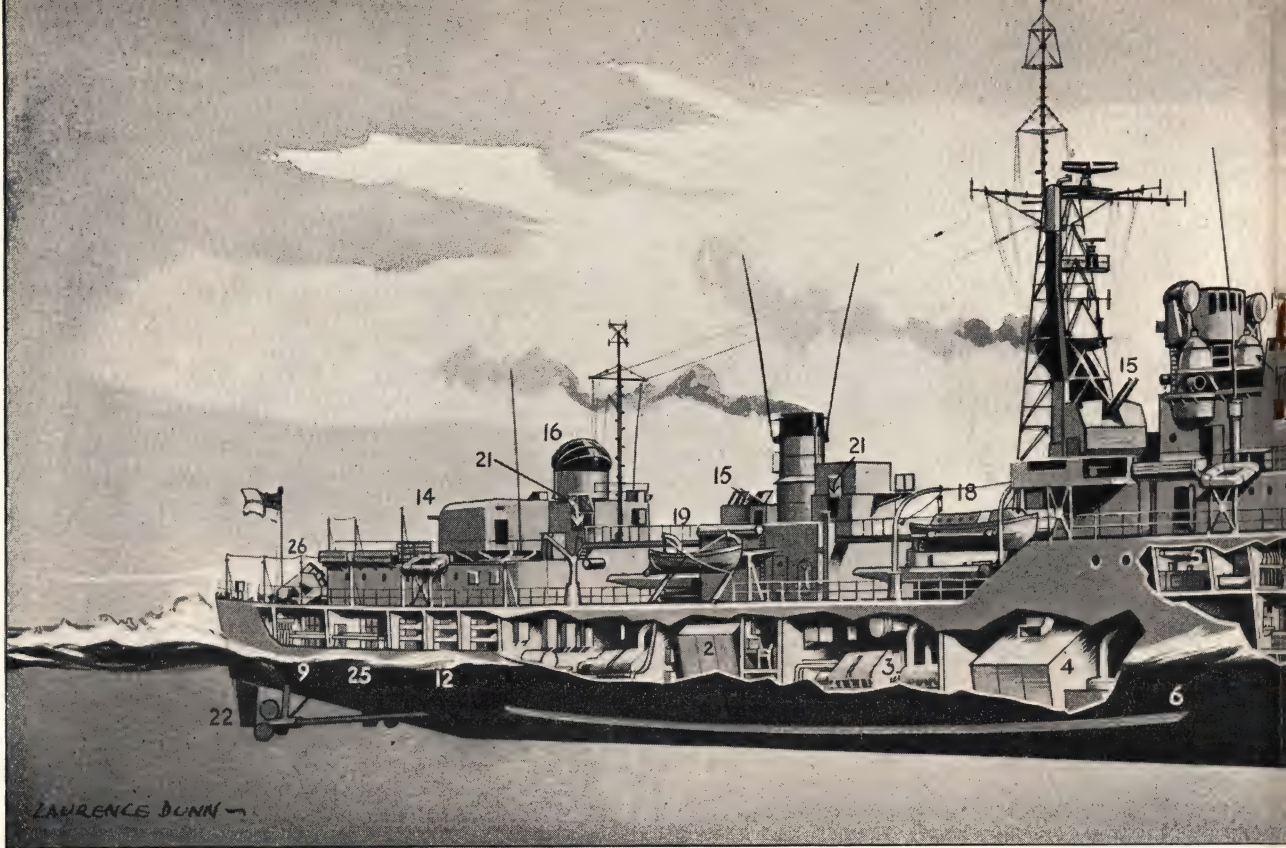
H.M.S. *Decoy* is armed with six 4.5 in. and six Bofors guns, all in twin mountings. She also carries ten 21 in. torpedo tubes and one squid. The main dimensions are length B.P. 366 ft., length overall 390 ft., breadth 43 ft. and maximum draught 12 ft. 6 in. Her peacetime complement is 10 officers and 268 ratings.

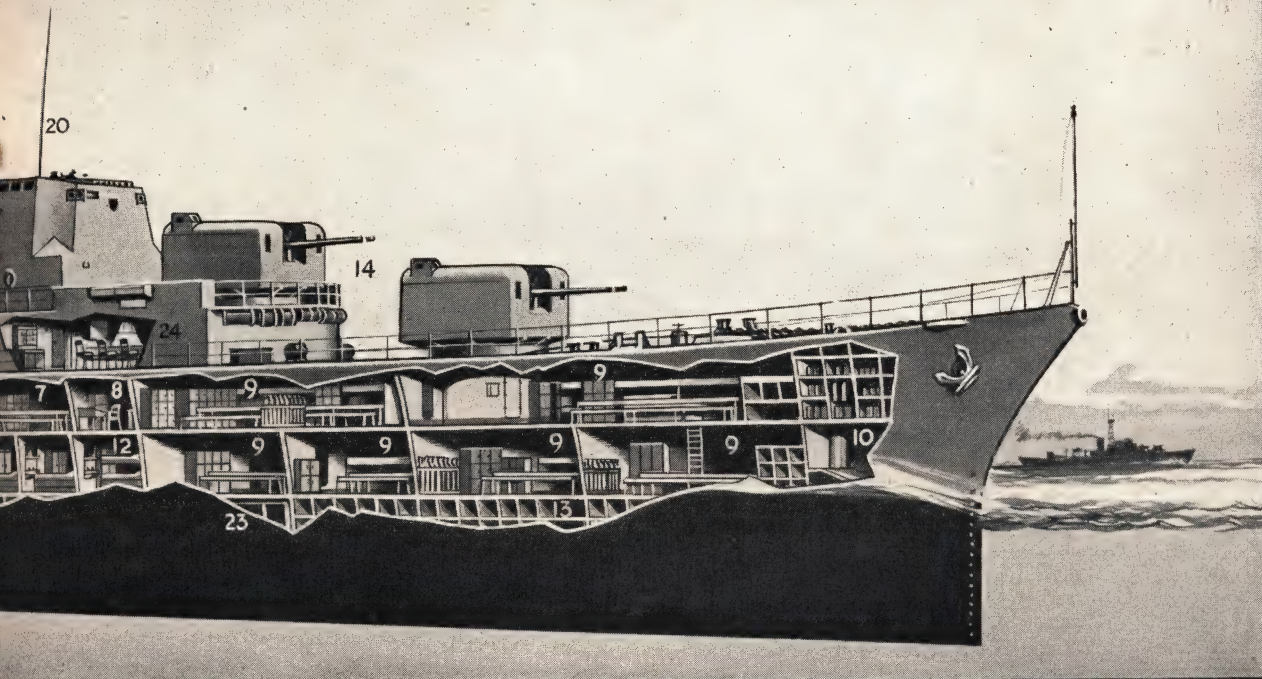
The first ship of this name was a ten gun cutter; launched at Fishbourne in 1810, she was captured by the French four years later, after she had grounded near Calais. The second *Decoy* was a 212 ton screw gunboat, mounting two guns; launched at Pembroke in 1856 she was dismantled at Haslar in 1869. The

third vessel was also a screw gunboat, but one mounting four guns and having a displacement of 408 tons. Built in 1871, also at Pembroke, she assisted two years later in the Ashanti War and also took part in the bombardment of Alexandria in the early 'eighties. She was finally sold at Malta in 1885.

The next *Decoy*—the fourth—was a Torpedo Boat Destroyer of 620 tons and was built at Chiswick. Launched in 1894, she was lost ten years later after collision near the Scillies.

The fifth *Decoy* marked a great increase in size. This ship, a destroyer of 1,375 tons was launched by Thornycrofts on June 7th, 1932 and was completed the following April. She mounted four 4.7 in. guns and eight 21 in. torpedo tubes, and had a speed of 36 knots. Prior to the outbreak of the second world war she spent most of her time in Chinese waters, but was then switched to the Eastern Mediterranean. She saw strenuous service both there and in the Battle of the North Atlantic. In 1943 she was transferred to the Royal Canadian Navy and renamed *Kootenay*. As such she was finally broken up at Vancouver in 1946.





Top. Sectionalised drawing of "Daring" class destroyer H.M.S. "Decoy"

Left. H.M.S. "Daring" at sea during exercises off Malta. Admiralty photo.

KEY

- | | |
|------------------------------|----------------------------|
| 1 No. 2 Engine Room | 14 Twin 4.5 inch Guns |
| 2 No. 2 Boiler Room | 15 Twin Bofors Guns |
| 3 No. 1 Engine Room | 16 Director |
| 4 No. 1 Boiler Room | 17 Air Lookout |
| 5 Officers' Galley | 18 25 ft. Motor Launch |
| 6 Bilge Keel | 19 27 ft. Whaler |
| 7 Stewards' Mess | 20 Whip Aerials |
| 8 Ship's Office | 21 Engine Room Ventilators |
| 9 Crews' Accommodation | 22 Twin Rudders |
| 10 Chain Locker | 23 Cold Store |
| 11 Lamp Store and Paint Room | 24 Wardroom |
| 12 Officers' Cabins | 25 C.P.O.s' Mess |
| 13 Stores and Provisions | 26 Squid |

I DO not think there ever was a better Line of big Cape Horners than Mr. Laeisz's Flying "Ps," out of Hamburg—not cargo-carriers, anyway, designed for the twentieth century. They were handsome, fast, and able ships, designed to stand up to anything Cape Horn could fling at them. They had to beat round the Horn to the west'ard every Chilean voyage, and they were built for the West Coast trade. Chilean nitrates make heavy cargo to strain the labouring hull of a great sailing-ship, running before a westerly gale or beating against a south-easter. The Flying "P" ships *had* to be good, and it was quite in character that such a Line should produce the magnificent five-masted *Potosi* and *Preussen*. I think these were the best five-masted square-rigged ships ever built. The *Preussen* was the only five-masted full-rigger, but the *Potosi* was only one of half-a-dozen or so giant five-masted barques.

It is not strange that several of these "P" ships should be among the last sailing-ships in existence. There are many still to be seen, though—at the moment—none is sailing. Here in the United Kingdom we have the former *Peking*, which is moored in the Medway now, disguised as the very effective training-ship *Arethusa*. In Mariehamn, up in the Aaland Islands, the four-masted barque *Pommern* has been laid up since before the war. Now she is to be preserved as a relic of Cape Horn sail. In the Baltic, the Soviet Russians have the former "P" four-master *Padua* which they use as a school-ship, under other names. Two others, sisters of the *Padua*, are scheduled to come up for sale in Hamburg this month. These are the well-known *Pamir* and *Passat*.

The *Passat*, a four-masted barque of over 3,000 tons register, was built as a sister-ship of the *Peking* at Hamburg in 1911. Almost at once she showed what she could do by storming out to Chile in 80 days, and back again to the Elbe in 73. The *Passat* and *Peking* were built by Blohm and Voss, who had built the 3,000 ton *Pamir* six years earlier. These ships, like all the German-built Laeisz vessels, were of the modern type of three island four-masted barque. They had big midships superstructures where both crew and officers lived, and instead of being steered and sailed from the poop—as had been traditional in sailing-ships from time immemorial—they were steered midships, and the officer of the watch kept his watch on the midships deck. In the *Peking*, sometimes 36 apprentices lived aft; but the poop of most of these big four-masters was given up to the auxiliary steering gear, a few storerooms, and a two-berth cabin or two for the petty officers.

The *Pamir* showed quite early in her career that she could move along, too, for she made a passage of 64 days from the Channel to Valparaiso the year after she was built. These big sailers had not only to earn their keep. They had to make fast, regular voyages if they were to stay in the Flying "P" Line. Mr. Laeisz was not interested in the odd burst of speed, nor in speed for speed's sake. None of his ships ever claimed phenomenal day's runs, or speeds of 20 knots or so. The best any of them ever



Pamir & Passat

the story of the "Flying P's" by

**ALAN
VILLIERS**

did was a shade over 17 knots, and that was the mighty *Preussen*. What they did accomplish was consistency in good passage-making, so that shippers knew pretty well when they shipped their cargo by a "P" ship about when it would arrive. The Laeisz family had been sailing big square-riggers in the nitrate trade for half-a-century when the 1914-18 war came along, and knocked them to pieces.

The *Pamir* spent that war with her full cargo aboard at a port of refuge in the Canary Islands, whence she was taken afterwards in prize, as reparations. It was not long before she was bought back to the "P" fleet, along with the *Passat*. The *Passat* was a prize, too, after spending the war in idleness. At that time no one else wanted such ships, and hundreds of splendid Cape Horners lay in such ports as Dunkirk and Nantes, St. Nazaire and Bordeaux, looking in vain for buyers. Gustaf Erikson bought a few of them, the *Herzogin Cecilie* included. Soon Mr. Laeisz was able to get going again with a fleet of six big four-masted barques and one full-rigged ship. After that, he took delivery of yet another, which had been building during the war: this was the *Priwall* (lost in the second world war when under the Chilean flag as the *Lautaro*). In 1926, he built his last four-masted barque—the last engineless real Cape Horner built anywhere. This was the well-known *Padua*.

The "P" ships kept going in the nitrate trade as long as possible. They were big carriers and they were manned, to some extent, by boys. But it became more and more difficult to make ends meet. Freights slumped quickly after the first world war. Meanwhile, the Panama Canal had been opened, and the sailing-ship no longer had any real advantage in the West Coast trade. Mr. Laeisz had to sell some of his ships in order to keep the others going. In 1930, a small group of us bought his splendid *Parma*, which had begun life as the Anglo-American's oil-carrying *Arrow*. We knew the *Pamir* was for sale then, too, and we thought of buying her. First we wanted to make a success of the *Parma*, and then add the *Pamir* to our "flag." But the *Pamir* was bought by the late Gustaf Erikson while we were on passage in ballast out to Australia. The price I heard he paid was £4,500, which is pretty cheap for a fine four-master, even then. Erikson bought the *Passat* a year or two later, but her price, I believe, was £6,000.

Erikson put the *Pamir* and *Passat* in the Australian grain trade, along with most of his other ships, with an occasional run with guano from the Seychelles to New Zealand, or outwards with sawn timber from the Baltic to East Africa, to help meet the expenses of the one-way Australian trade. The Flying "P" ships could not afford to run on the one cargo a year which Australian grain charters permitted. After all, the Erikson Line was fortunate in being run entirely with older ships, bought very cheaply, and manned at what certainly were very low wages. Mr. Laeisz did put some of his four-masters in the Australian trade, and the *Padua* and *Priwall* shared a wonderful 66-day run from the Elbe to Spencer's Gulf in 1933. These passages were equal to any most clippers ever made, but they earned nothing. They had to be made in ballast.

Both the *Passat* and *Pamir* remained under the Finnish flag until the outbreak of the second world war, and both did very well in the so-called Grain Race. The *Passat* escaped the war by being held up in the Baltic, and sailed again afterwards under the Finnish flag, but she could not pay. Meanwhile in 1947, Gustaf Erikson died. He had commissioned only two ships after the war, the *Viking* and *Passat*, and added the *Pamir* when she was handed back to him by New Zealand.

The *Pamir* was taken prize in a New Zealand port during the war, when Finland—technically, at any rate—was on the German side, and she was sailed for some years in the transpacific trade. Her masters were New Zealanders who had sailed in the Tasman Sea barques, and they soon showed that they had not forgotten the art of square-rigged ship-handling. Two brother shipmasters named Champion sailed the *Pamir* most of this time, on passages between Wellington and California, but it was Captain

Collier who brought the big ship into the Shadwell Basin when she came to London with wool and hides not long after the end of the war.

The *Pamir* went across to Antwerp to load basic slag for the return passage to New Zealand. She had done very well, but she was an expensive ship to run. So she was handed back to the Finns, and Erikson flew a master out to take her over in Wellington. Unfortunately, he did not also send a crew, and engaging young Australians and New Zealanders (who had to be sent home again at the ship's expense from Europe) made it hopeless for the *Pamir* to pay. So Erikson did not sail her very long either. By 1949, both the *Passat* and the *Pamir* were employed only as grain storage ships for the Ministry of Food, and the rats thrived aboard them. When the grain was finally discharged, thousands and thousands of rats were found aboard. They at any rate had found a comfortable home.

But the two big old "P" ships appeared then to be doomed. They were sold to a Belgian shipbreaker and towed round to Antwerp, and letters came from shiplovers all over the world asking for their bells, or for some souvenir from them. The ships were actually in the knackers' yard, when the rather astonishing news was received that they had been reprieved, after all, and would go to sea again. They were bought by a Hamburg shipowner named Schliewin, and his announced object was to make them into sail training-ships on—he hoped—an international basis. The shipping world was somewhat surprised but wished Herr Schliewin well, while it wondered how he was going to make them pay. If they could not make ends meet under the Finnish flag, how could they hope to do so under

Heading : The "Pamir" heading down Channel
Reuter Photo

Right : The "Passat" in tow on the Humber



the German? And if they were to be sailed again, surely the Flying "P" Line was the concern to do the job, *par excellence*.

But there it was. The scheme, as details became known, was most ambitious. The two four-masters were to be completely modernised, and this modernisation was to include the installation of large diesel engines, called auxiliaries but really large enough to rate the ships almost as full-powered motorships. Each ship was given at least one complete new suit of sails. They were fitted with partail double bottoms which could be used as deep-tanks, and could take 800 tons of water ballast. An electric installation was added to provide light and heat, and to pump the deep-tanks and bilges. Six watertight bulkheads were built into the already strong hulls, and a steel-strengthened longitudinal bulkhead was installed for about three quarters of their length. Mechanical windlasses, full W/T equipment as well as radio telephony, and echo sounding were all installed. The main engines were 1,100 h.p. Krupp diesels, designed to give the four-masters a speed of 9 knots. The accommodation was completely altered to make both ships into proper school-ships for 70 cadets apiece.

All this cost a great deal of money. More was to follow. Plans were announced from the Schliewin office for the building and conversion of a fleet of at least five sailing school-ships which was to include a five-master carrying 6,000 tons, and manned by 80 cadets in addition to the regular crew. The whole fleet was designed to train some 300 or 400 cadets a year, a fourth of whom were to be non-Germans. It was hoped that the German Federal Government would subsidise the ships and the training too.

All this was towards the end of 1951. The *Pamir* and *Passat* were in fact converted, and splendidly converted, into auxiliary sailing school-ships, but unfortunately they ceased to be sailing-ships in the process. The manner of the conversion had seriously reduced the carrying capacity of both ships, and the costs of running them were high. Their big engines, their auxiliaries, and the need to carry proper instructors for the 70 cadets greatly increased running expenses, and filled the ships with large numbers of persons who did not add anything to their earning powers. For a while, it seemed to work. Both four-masters made a round voyage to the Plate and back. High freights helped to offset their heavy running costs. The propellers obligingly dropped off both ships on their first outward passages, but new propellers were flown out to them in South America. The Federal Government, however, was reluctant to commit itself to so ambitious and costly a scheme, and the requirement that German merchant service officer-aspirants should serve some of their training time under sail had been given up. If the Schliewin interests really could get going—and keep going—a fleet of ships large enough to keep the growing German merchant marine properly supplied with a sufficiency of young officers, that would be wonderful. But could it? A good many shipowners were mighty doubtful about it. After a while, so was Herr

Schliewin. On their second voyage, it was obvious that the two four-masters were in financial trouble. It was simple enough. It was costing more to run them than they could possibly earn, and the prospects of ever gaining subsidies of value sufficient to keep them going were extremely slim. They were going steadily and heavily in the red.

It was a pity. It was a great scheme. There is no doubt whatever that the restoration of sail training would have been a fine thing, especially on a truly international basis. But the two four-masters could not stand the drop in freights which was inevitable, and though there was a tremendous stream of applications for cadetships in them, it was not long before their running costs could not be met, and they were laid up. A Government subsidy sufficient to keep them going was not forthcoming, and that was that.

The *Pamir* and *Passat* have been laid up, one at Lubeck and the other at Hamburg, for the best part of two years. Now it is announced that they are to be sold by auction this month. In the meantime, however, there are reports that an Association for Fostering Recruitment to the Sea Service has been formed, which has plans to raise the capital necessary to get the ships going again. There was an old scheme in Germany whereby every shipowner was to support sail-training, either with a ship or ships of his own (if his company was big enough) or to share the costs of running a sailing-ship with other firms, if his was a small company. Apparently some form of this scheme is to be introduced again, with a combination of shipowners finding the necessary funds to revive the two ships, and the shipowners, the creditor bank, and the state of Schleswig-Holstein combining to form an organisation to run them. If the ships are revived, it is proposed to run them as cargo-carrying school-ships with a crew of 25 and 50 cadets. Even so, they must go heavily in the red again, and a real and substantial subsidy will have to come from somewhere.

I shall watch the outcome of this month's auction sale with a great deal of interest.

We publish a number of books for those interested in square rigged ships. "The Wheel's Kick and the Wind's Song" by Capt. A. G. Course recounts the history of the well-known Stewart Line of sailing ships in some of which the author served. "The Tea Clippers" by David R. MacGregor is an authoritative account of these ships from 1849 to 1869 with photographs and in a number of cases folding plates of hull lines and construction plans. "The Merchant Schooners" Vol. 1 by Basil Greenhill is a valuable record of the smaller sailing ships, also with hull lines and constructional plans. Books in preparation include "Nelson's Ships" by Dr. Longridge and "The Four Mast Barque" by E. Bowness, both of which are expected to be ready before the Exhibition in August. Vol. 2 of "Merchant Schooners," "The End of the Voyage" and "Under Four Flags" will follow in due course.

Modelling a...

50 GUN SHIP

On the establishment proposed in 1733

This month's instalment comprises the key to the drawing on page 107 of our last issue and is of utmost importance to all ship modellers

By R. J. COLLINS

STANDING RIGGING

(With the exception of the falls of the various tackles all the ropes are black. The figure given after each rope is its circumference in inches. The number of blocks needed is given in brackets after the size.)

Bowsprit

1. Gammoning : 6 in.
2. Bobstays : 4 in., laniards $2\frac{1}{2}$ in., medium dead eyes (4).
3. Shrouds : 6 in. shroud laid, laniards 3 in., medium dead eyes (4).
4. Footropes : 4 in., laniards 2 in., small dead eyes (4).
5. Standing lifts of yard : 3 in., laniards 1 in., small dead eyes (4).

Foremast

6. Tackles : pendants 6 in. shroud laid, 16 in. block (2), 26 in. sister block (2), runners $5\frac{1}{2}$ in., 26 in. sister block (2), falls 3 in., 16 in., block (4).
7. Shrouds : 6 in. shroud laid, large dead eyes (28), laniards 3 in., ratlines 1 in.
8. Forestay : 10 in. cable laid and wormed $1\frac{1}{2}$ in., 16 in. hearts, (2), laniards $3\frac{1}{2}$ in., collar 9 in. cable laid.
9. Preventer stay : 5 in. cable laid, large dead eyes (2), laniards 3 in., collar 6 in. cable laid.
10. Futtock shrouds : $3\frac{1}{2}$ in.
11. Topmast burton tackles : pendants 3 in., shroud laid, 9 in. blocks (2), runners 2 in., 9 in. blocks (2).
12. Topmast shrouds : 4 in. shroud laid, medium dead eyes (20), laniards $2\frac{1}{2}$ in., ratlines 1 in.
13. Topmast back stay : 4 in. shroud laid, medium dead eyes (12), laniards $2\frac{1}{2}$ in.
14. Topmast preventer stay : $3\frac{1}{2}$ in., medium dead eyes (2), laniards $1\frac{1}{2}$ in., collar 3 in.
15. Fore topmast stay : $4\frac{1}{2}$ in. cable laid, 18 in. sister block (1), runner 3 in. belayed to gammoning on port side, 12 in. block (1), 12 in. treble block (1).
16. Flying jib stay : $1\frac{1}{2}$ in., 10 in. blocks (2), 1 in. falls belayed to starboard rail, from ring through sheave in jibboom to three part tackle, 10 in. blocks (2), runner through top sheave of starboard rack block to first timber head.

17. Fore topgallant shrouds : 2 in. shroud laid, small dead eyes (12), laniards 1 in., ratlines 1 in.
18. Fore topgallant back stays : same size as shrouds, small dead eyes (4).
19. Fore topgallant stay : $1\frac{1}{2}$ in., through centre sheave of 10 in. treble block on jibboom, inboard through top sheave of port rack block to second timber head.

Mainmast

20. Tackles : pendants $6\frac{1}{2}$ in., 17 in. blocks (2), 28 in. sister block (2), runners 6 in., 28 in. sister block (2), falls $3\frac{1}{2}$ in., 17 in. blocks (4).
21. Main shrouds : $6\frac{1}{2}$ in. shroud laid, large dead eyes (32), laniards $3\frac{1}{2}$ in., ratlines $1\frac{1}{2}$ in.
22. Main stay : 12 in. cable laid and wormed 2 in., 18 in. hearts (2), laniards $4\frac{1}{2}$ in., collar $9\frac{1}{2}$ in. cable laid.
23. Main preventer stay : $7\frac{1}{2}$ in. cable laid, large dead eyes (2), laniard $3\frac{1}{2}$ in., collar 6 in. cable laid.
24. Futtock shrouds : 4 in.
25. Topmast burton tackle : pendants $3\frac{1}{2}$ in. shroud laid, 10 in. blocks (2), runners 2 in., 10 in. blocks (2), falls 2 in. belayed to base of middle shroud.
26. Topmast shrouds : $4\frac{1}{2}$ in. shroud laid, medium dead eyes (20), laniards $2\frac{1}{2}$ in., ratlines 1 in.
27. Topmast back stays : same size as shrouds, medium dead eyes (12), laniards $2\frac{1}{2}$ in.
28. Topmast preventer stay : $2\frac{1}{2}$ in. cable laid, small dead eyes (2), laniards $1\frac{1}{2}$ in., made off to back of lower fore stay.
29. Main topmast stay : $4\frac{1}{2}$ in. cable laid, 20 in. block (1), 29 in. sister block (1), runners 3 in., 12 in. block (1), made off to ring bolt in deck abaft the foremast.
30. Futtock shrouds : $2\frac{1}{2}$ in.
31. Main topgallant shrouds : $2\frac{1}{2}$ in. shroud laid, small dead eyes (12), laniards 1 in., ratlines 1 in.
32. Main topgallant back stay : same size as shrouds, small dead eyes (4).
33. Main topgallant stay : $1\frac{1}{2}$ in., 10 in. block (1), belayed to strop of main topmast stay block at fore top.

Mizzenmast

34. Burton tackle : pendant $3\frac{1}{2}$ in. shroud laid, 10 in. blocks (2), falls $2\frac{1}{2}$ in., 10 in. blocks (2). Belayed below lower block.
35. Mizzen shrouds : $4\frac{1}{2}$ in. shroud laid, medium dead eyes (20), laniards $2\frac{1}{2}$ in., ratlines 1 in.
36. Mizzen stay : $4\frac{1}{2}$ in. cable laid, medium dead eyes (2), laniard $2\frac{1}{2}$ in., collar 4 in.
37. Futtock shrouds : $2\frac{1}{2}$ in. shroud laid.
38. Topmast burton tackle : pendants 3 in. shroud laid, 9 in. blocks (2), runners 2 in., 9 in. blocks (2), belayed beneath lower dead eye of last shroud.
39. Mizzen topmast shrouds : $2\frac{1}{2}$ in. shroud laid, small dead eyes (12), laniards 1 in., ratlines 1 in.
40. Topmast back stay : same size as shrouds, small dead eyes (4).
41. Topmast stay : $2\frac{1}{2}$ in. cable laid, small dead eyes (2), laniards 1 in. made off to back of main stay.
42. Foot ropes for lower yards : $4\frac{1}{2}$ in., small dead eyes (4), laniards 1 in.
43. Topsail yard foot ropes : 3 in.
44. Topgallant yard foot ropes : 2 in.
45. Crows footing : all ropes 1 in., euphroe blocks—fore 24 in. 10 holes, main 30 in. twelve holes, mizzen 20 in. eight holes, 6 in. blocks (6).
46. Lower catharpins : fore $1\frac{1}{2}$ in., main 2 in., 8 in. blocks (26).
47. Upper catharpins : fore $1\frac{1}{2}$ in., main 2 in., small dead eyes (8).
48. Topmast catharpins : fore $1\frac{1}{2}$ in., main 2 in.
49. Parrells : rope 4 in., rib length equals diameter of yard, rope for tackle 1 in., 6 in. blocks (4).
50. Top parrells : 3 in., top gallant parrells 1 in.
51. Lateen parrell : $2\frac{1}{2}$ in.
52. Standing lift of crowjack : $2\frac{1}{2}$ in., small dead eyes (4), laniards 1 in.
53. Crowjack sling : $3\frac{1}{2}$ in., 12 in. block (1).
54. Spritsail sling : $4\frac{1}{2}$ in.
55. Fairleads : $1\frac{1}{2}$ in., 12 in. blocks (4).

	MASTS		YARDS		CAPS
	length	dia. at partners	length	dia. at slings	
Bowsprit	54	2-3	48	1-0	7-0 × 3-0 × 1-0
Jib-boom	37	0-11 $\frac{1}{4}$			
Fore mast	*63	2-4	67	1-6 $\frac{3}{4}$	4-6 × 2-3 × 1-1 $\frac{1}{2}$
Fore top mast	47	1-4 $\frac{1}{2}$	50	1-0 $\frac{1}{2}$	2-6 × 1-3 × 0-7 $\frac{1}{2}$
Fore top gallant	25	0-8 $\frac{1}{4}$	35-6	0-9	
Main mast	*68	2-5	76	1-9	5-0 × 2-6 × 1-3
Main top mast	53-4	1-6	56	1-2	2-6 × 1-4 $\frac{1}{2}$ × 0-8 $\frac{1}{4}$
Main top gallant	28-6	0-9	38	0-9 $\frac{1}{2}$	
Mizzen mast	*54	1-6	48	1-0	3-6 × 1-9 × 0-10 $\frac{1}{2}$
Mizzen top mast	47-6	1-4	38	0-9 $\frac{1}{2}$	
Mizzen lateen yard			65	1-4	

* height above main deck

The middle quarter of the yards (excepting the sprit, crowjack and lateen) is eight sided. The overall length of the cleats is approximately $\frac{1}{10}$ the length of the yard, the space inside being half the length of the cleat, the depth is one quarter the diameter of

the yard, and the clearance about one half this, thickness one half the depth, opening between the horns one eighth of total length. There are no cleats on spritsail, crowjack and lateen.

(To be continued)

P.M. Plans Service

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COMING ATTRACTIONS . . .

A number of drawings of the 50 Gun Ship of 1733, made full size for the model, are being prepared. Sheet 1 shows the Sheer Plan, Body Plan, and Waterlines Plan; Sheet 2 Deck Plans and the Longitudinal Section showing Inboard Works; Sheet 3 Standing Rigging with mast details inset, and Sheet 4 Running Rigging with details inset. Also in course of preparation are plans for the "A" class "Sharpie K.N." which will include Hull Lines, Sail Plan and Construction Plan. Prices will be announced when the plans are available.

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TOPICAL

Digest

SLEEP EASY

In instructions recently issued to the Royal Canadian Navy it is decreed that ratings must not sleep standing up or in any position other than horizontal.

The orders further say:—

"All men sleeping in bunks should sleep with heads forward and feet aft;

"Bunks and reading lights in ships undergoing conversion and in new construction should be arranged accordingly. Bunks should be arranged horizontally."



CHEAP RATE

Liberia asks 8½d. per year for each net ton of cargo space from ships registered there. This fact has developed into a serious threat to British shipping, for last year one-sixth of the 3,171,000 tons of merchant shipping launched, was registered under the Liberian flag.

Millionaire Aristotle Onassis, for his new 45,000 ton tanker "Tina Onassis," has thus had to pay for his tax toll to Liberia, about £540 a year.

A British shipowner registering a ship of equivalent size in this country would have to pay around £75,000.

The British shipping industry set aside about £23,000,000 of their profits last year for new shipping and maintenance, yet had to pay a crippling £31,000,000 in taxes. Not much incentive to regain any lead we had in the merchant shipping world.

SKY BLUE PINK

Rose pink, petunia, coral and heather are some of the cosmetic colours that technicians have had to take into account in laying out the interior decoration for the new £7,000,000 P. & O. liner, "Arcadia."

Interior lighting and furniture has been designed to flatter feminine complexions, hair tints and evening gowns, even lipstick shades have been studied. It seems to make this 29,734 ton ship, which cost more than the "Queen Mary," a definite attempt to lure more women passengers to the high seas.

BRAZIL BOUND

A new monthly cargo service from London to Rio de Janeiro was started recently by the Lloyd Brasileiro Patrimonio Nacional of Rio de Janeiro with the Loide Brasil (7,500 tons).

The company's admittance to membership of the United Kingdom-Brazil Conference has made this two way traffic possible. Previously the ships had been calling at the Thames to unload homeward cargoes. The itinerary will be Hamburg, Bremen, Rotterdam, Antwerp, and London, thence to Recife, Rio and Santos, perhaps calling at other South American ports.

A NEW START

On February 2nd, West Germany formally entered business on the North Atlantic run, for the first time since 1939. The first vessel to be chartered is the 19,000 ton Swedish liner Gripsholm.

* * *

HISTORIC DOCKYARD

The report of the English Harbour Repair Fund, which was launched in February, 1952, to raise £40,000 in the United Kingdom for the restoration of the eighteenth-century naval dockyard of Antigua, states that only £2,362 had been subscribed by last December. Of this total £2,100 has been sent to Antigua, where a further £3,000 has been raised. The fund will remain open.

At English Harbour "slow but steady" progress is being made in the restoration work. The old officers' quarters have been re-roofed and the building is now ready for occupation as a guest house. The pay office has been almost completely rebuilt, and the big copper and lumber store partially repaired.

* * *

WELCOME TO H.M.S. "DIANA"

The last of the eight Daring class ships, H.M.S. Diana (see "The Daring Class," p. 139 this issue) has recently been accepted into Her Majesty's Service.

The Diana was launched on May 8th, 1952, at the Scots-toun Yard of Messrs. Yarrow & Co. Ltd., who are responsible both for her main machinery and hull.

With an extreme length of 390 ft., 366 ft. between perpendiculars, and a beam of 43 ft., the Diana is armed with six 4.5-in. guns, six other guns and two above water pentad torpedo tubes.

The Diana's peace-time complement will be about 16 officers and 281 men.

* * *

ORSOVA'S MAIDEN VOYAGE

The new Orient liner Orsova, of 29,000 tons, left Tilbury on March 17th on her maiden voyage to Australia by way of the Suez Canal.

The latest addition to the Orient line's fleet, which now numbers six, has cost about £6m. The new vessel has room for 681 passengers in the first-class and 813 in the tourist "B" class.

Externally, one of the most remarkable features of the Orsova is that she has no conventional mast.



Well that's one way to catch live bait!

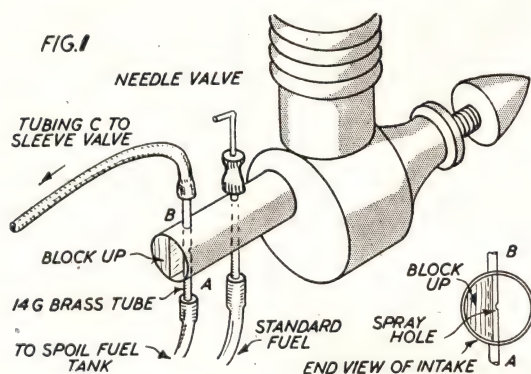
RADIO CONTROL NOTES

A series of articles for the modeller with an interest
in remote control of his craft

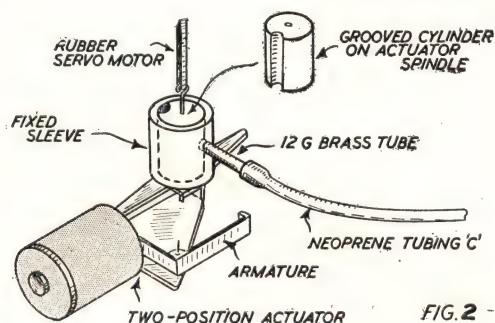
By G. SOMMERHOFF

Author of "Radio Control of Model Aircraft" price 9s. 6d.

A NEW METHOD OF DIESEL SPEED CONTROL



Figs. 1 and 2 : The author's method of speed control as described in the text



The "Wavemaster" at half speed

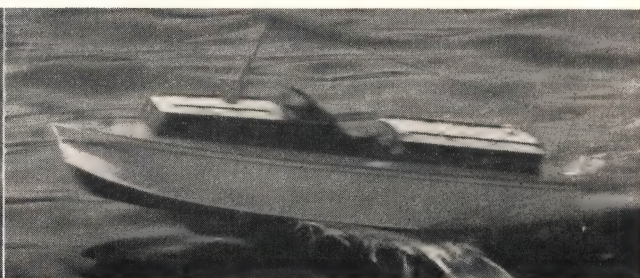
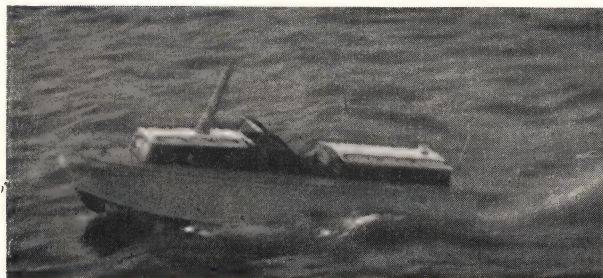
FIG. 2

MORE readers, we are glad to say, are now beginning to send their ideas to this column ; and this month we have had a particularly interesting communication from Mr. G. Honnest-Redlich, the well-known designer of E.D. radio equipment, on the subject of diesel engine speed control. This was followed by an impressive demonstration and our photographs show Mr. Redlich's "Wavemaster" at full speed and at reduced speed respectively.

As most readers will know, the problem of obtaining a smooth control over the speed of a compression-ignition engine has always proved to be a difficult one and this is the one salient point on which the diesel fails to score over the spark ignition engine. The problem arises from the fact that the throttle setting on diesel is comparatively critical so that speed control cannot be obtained simply by varying the throttle.

Mr. Redlich has designed a new method in which the desired speed control is obtained by means of two coupled butterfly valves, which are situated in the induction tube—one on each side of the spray-bar. The basic arrangement is shown in one of our accompanying photographs. But since it is desirable to adjust the mutual position between the valves, he has two modified versions in use. In the one a kink is introduced into the connecting-rod between the two valve levers and the mutual adjustment of the valves is effected by flattening out this bar or by increasing the kink. In the other a single lever controls a pinion which engages with gears on the valve spindles as shown in Fig. 3. With this arrangement he can withdraw the pinion and move around

The "Wavemaster" at full speed



either one or both valve gears a few degrees thus varying the adjustment of the valves.

Mr. Redlich finds that this system has advantages for both plane control and boat control. With plane control he can climb with the engine at full speed and reduce speed when it reaches its required altitude. The lower speed is also very useful for landing the aircraft. Similarly with a boat the craft can start away at reduced speed and be switched over to full speed when clear of the bank or obstacles. For directing a boat through closely spaced marking buoys the lower speed gives great advantages. The speed control lever is moved by an actuator. The installation in the "Wavemaster" is shown below.

Mr. Redlich, incidentally, mentioned that he has taken out a provisional patent for this invention. The invention is not therefore open to commercial exploitation except by arrangement with the inventor.

ANOTHER EXPERIMENTAL METHOD OF SPEED CONTROL

Mr. Redlich's interesting experiments bring back to the writer's memory the entertaining time he had when he himself set out to tackle the problem of speed control on compression-ignition engines a couple of years ago. The solution he finally adopted is less elegant than Mr. Redlich's but has worked quite well. The writer's solution is shown in Figs. 1 and 2. The induction tube is fitted with a second spray-bar and fuel feed. A special "spoil fuel" is supplied to this second spray-bar from a separate tank and this supply is governed by a remote controlled cut-out (Fig. 2) which takes the form of a sleeve valve operated by a radio controlled actuator. The valve opens or shuts a bleed hole.

The "spoil fuel" is a special fuel mixture which when added to the normal fuel causes the engine to splutter and reduces its output to about one quarter without stopping the engine or choking it off.

I well remember the gay time my assistant and I had when we set off in search of some fuel mixture that would have the desired asthmatic effect on the engine without actually killing it. We tried anything in a bottle that we could lay our hands on, from cosmetics to laxatives. Finally we chanced upon a mixture of cigarette lighter fuel and diesel fuel in the ratio 1:3 with very good results. The mixture can be varied to control the speed reduction.

A CLEVER STEERING MECHANISM

Not so long ago Mr. Honnest-Redlich demonstrated another clever idea to the present writer

The installation—power and radio—in the "Wavemaster"

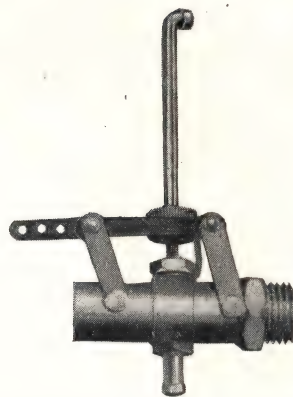
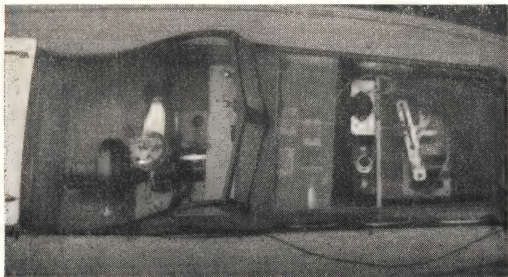
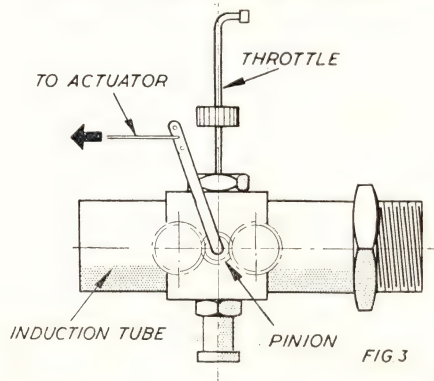
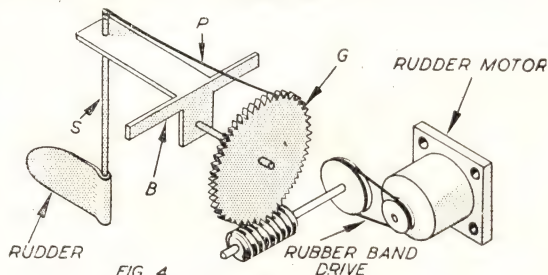


Photo of a throttle made by Mr. Redlich



Alternative design with gears for adjusting throttles relative to each other



Steering gear with tiller made of piano wire

which may well be of interest to other modellers. This was a steering mechanism of a boat in which the rudder was coupled to the reduction gear of the rudder motor simply by a length of piano wire which rested on (and was tensioned to press on) the cogs of a large gear wheel. (Fig. 4). The piano wire *P* is soldered to the rudder shaft *S* and presses on the gear wheel *G*. The advantage of this system is that no limit switches are required, for as the rudder travels across, the pressure of the wire on the gear wheel diminishes and eventually the wire will simply skip and disengage. This process may be assisted by a transverse bar *B* which is fixed at an appropriate height and acts as a stop to the piano wire.



RESTORING A DISMASTED BRIG

★ J. H. MOFFATT

decided, first to make all the notes that I could and then to dismantle, repair and re-rig, as far as possible, the bow-sprit and fore-mast before taking down the main.

While making the notes it became necessary to raise up the mass of wreckage from the lee rail, this being done by passing a length of rod beneath it and parallel with the hull. The rod was then raised on to a support at each end. Much of the lee rigging, so revealed, was intact and therefore easily traced. Later it was possible to re-step, temporarily, the unbroken lower masts and, by clamping the broken upper masts in position with improvised clips, to trace and note the upper rigging and gear. In order to obtain the original trim of yards and sails, the lengths, or drift, of the lower braces, tacks and sheets, spanker sheet and vangs, were measured and noted. Eventually all items of gear, spars and fittings, including the many loose and broken ends, were accounted for and recorded in sketch or note, this concluding the more difficult and tedious part of the job.

The hull was now removed from its base, the carved wooden "sea" to which it was attached by the cotton wool "wash," and small loose fittings were collected into a box. The fore-mast was then dismantled, rigging being cut near the setting-up and belaying points, where necessary. Sails, and pieces thereof, were each marked in pencil for identity when required as patterns for the replacements. The bowsprit assembly was not removed as its damage was confined to the flying-jib-boom, which had snapped at the jib-boom end.

With some of the wreckage cleared, it was now possible to clean the fore part of the deck, using moistened cloth pads held in tweezers, followed by

ALTHOUGH the majority of sailor-made models do not compare very favourably with the products of present day ship-modellers, they are a valuable record of the past and some of them, in their charm of artistry, reflect their makers' love and enthusiasm for the sailing ship. Such a model is the subject of these notes, a brig of the mid-nineteenth century, with big single topsails, in a sea heeling to a quartering breeze, with weather studding-sails set on the fore. Eleven inches in length overall, well proportioned and neatly made, it looked like an old coloured print in its case with yellow edged panels. That is how it appeared when I saw it first at a friend's home, but alas, a few months later it received a direct hit from a falling oil-painting, which demolished the glass case and flattened the masts and rigging to rail level! Beneath the mass of debris, which choked the deck and littered the sea to leeward, lay two of the crew, prostrate, but the skipper, brave soul, still stood at his post.

I was asked to restore the model to its former state, and having taken delivery of the remains, was able to examine them in detail. Since the mishap very little had been disturbed, which made the sorting out process considerably easier than it might have been. It was obvious that complete re-rigging would be necessary and the sails, of paper, which had become brittle with age, were too broken up for satisfactory repair. The masts and spars, of bamboo, had fared better, only six items being broken. By good fortune, the wooden hull had suffered no serious damage, apart from some deck fittings adrift. I

Left: The wreck before salvage operations

Below: The model as finally completed





The model during restoration, with masts erected and foremast partially rigged

dry polishing. The deck and spars appeared to be varnished but, from its colour and readiness to dissolve in methylated spirit, I concluded it to be shellac or french polish.

Repair work began with the renewal of the flying-jib-boom, carefully shaped in bamboo to the old pattern, then toned with water-colour and given a coat of french polish before fitting in position. The fore-mast came next. Here the damage comprised the breakage of the topmast and topgallant at the upper doubling, a broken top, and topmast crosstrees. The two masts, being thicker than the flying-jib-boom, were successfully repaired; the topmast by drilling centrally on each side of the break, with a spearhead drill of fine piano wire, and then joining the spar with a bamboo dowel; the topgallant by slotting diametrically, instead of drilling, and inserting a thin rectangular slip of bamboo. Both joints were fastened with "Duroglue" and when set stood up to a good bending test. When cleaned, touched up with water-colour and shellac, the breaks were almost invisible. The fore-top, cut out of whalebone or similar material, was broken into three pieces. These were successfully united with glue. The topmast crosstrees, of the same material, had to be renewed after unsuccessful attempts at repair. The replacements were cut from sheet celluloid, $\frac{1}{64}$ in. thick, sanded over to render them semi-opaque and, after an application of french polish, matched well with the old fittings. The fore-mast was now ready for assembly.

In rigging, I kept to the same size of cordage as the original, using two sizes of linen thread and three of silk. Where necessary, standing rigging was blacked with drawing ink, running gear treated with water-colour and all cordage was rubbed down with softened beeswax before being made up. Re-rigging, which commenced with the bowsprit, was quite straightforward and need not be described in great detail. Much of the rigging was set up with

pegs into the hull. These were drilled out and the broken and cut ends of gear removed. The fore-mast was assembled before stepping, being dressed with its lower standing gear, upper shrouds set up to their futtocks, and the topsail yard crossed.

The raising of the bare fore-mast was followed by the dismantling and restoration of the main, using the same procedure as already described. Here the damage comprised a fractured topgallant, which was made good by dowelling and glue, broken main-top, topmast crosstrees and cap, all of which had to be renewed in celluloid.

Of the remaining spars, only the two studding-sail booms were damaged and these were replaced.

For the new sails a cream based writing paper was selected which closely resembled the old material. This was given several washes of water-colour, yellow ochre with some light red and neutral tint, to match it to the old sails, which had darkened. The treatment brought up a pronounced grain in the paper which was removed by hot ironing. The pieces of each old sail were then assembled on a sheet of the new paper and the shape marked out in pencil. Although I did not entirely approve of the cut of some of these sails, I left them unaltered. The sails were fitted into position as they were made and, with the exception of the topsails, all square sails were bent to their yards before crossing the latter on the masts.

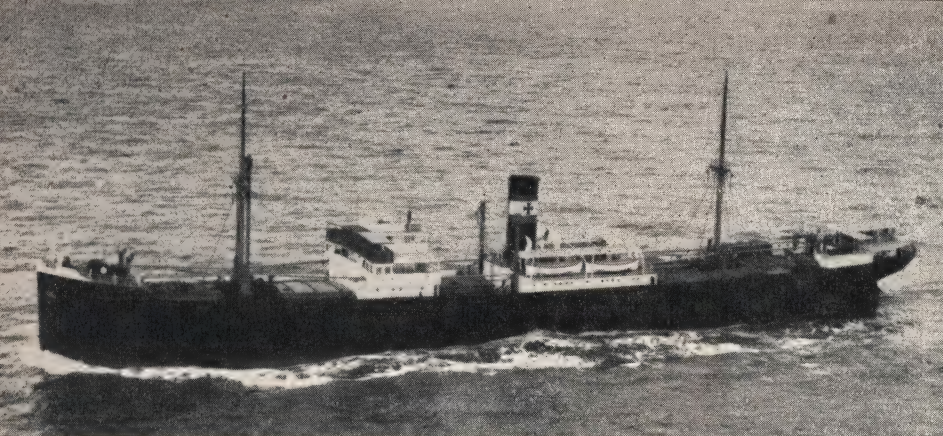
In re-instating the deck fittings, the wheel, of paper, had to be renewed, the replacement being cut out with a razor blade.

The paint-work responded well to cleaning: repainting, therefore, was confined to matching new material and touching up repair work. Unwise repainting of an old model can destroy its character and charm.

When our brig was ready for sea, complete with a smoking saloon chimney and red pennant at the main-truck, I turned to the preparation of the baseboard and case. After being cleared of broken glass and washed, the "sea" came up bright and fresh and proved to have been unmarked by the accident. The previous case, which bore evidence of not being entirely original, had joints of *passe-partout* strengthened with paper beneath it. One panel from this had survived, and with it and new glass, cut by the supplier, the new case was built up, having joints of glued tracing linen overlaid with *passe-partout*.

In replacing the model in its base, the heeling angle was self-evident by the fact that the recess in the "sea" sloped to conform to it. I secured the hull with a small screw from beneath rather than solely relying on the previous method of fixing. All that remained now was to fasten down the case, with tracing linen and *passe-partout*, and to paint in the yellow lining borders on its panels, using artists' oil-colours thinned with mastic varnish.

This concluded what I had found to be a most absorbing and satisfying task, but to accompany our brig on her further voyaging through the years, I prepared a brief summary of the repairs and replacements, together with the date and the cause of it all.



No. 4: THE HANSA LINE of BREMEN

BY LAURENCE DUNN

The Hansa Line, or the Deutsche Dampfschiffahrts Ges. to use its official title, is one of Germany's major shipping companies. Owners in bygone days of a very large fleet of cargo liners, its now rapidly expanding fleet consists of some two dozen units, half of which are of the ocean-going cargo liner type, the rest consisting of six smaller short seas traders and some coasters which are under 1,000 tons apiece.

The firm, which has its headquarters at Bremen, was founded an 1881, and in the following year took delivery of its first newly built ship, the *Stolzenfels*, a ten knotter of 3,500 tons d.w. Originally the company confined its operations to Spanish, Portuguese and Mediterranean ports, but it soon realised the importance of the Eastern trades, and in 1889 a liner service to India was opened. Steady expansion followed until at the commencement of the first world war the Hansa Line was operating regular services between North Continental ports, the U.K. and North America to India, Ceylon and Burma. There were also other lines radiating from Northern Europe to Spain, Portugal, U.S. Gulf and South America. During the first world war the firm lost its entire fleet amounting to 76 ships of 480,879 tons gross.

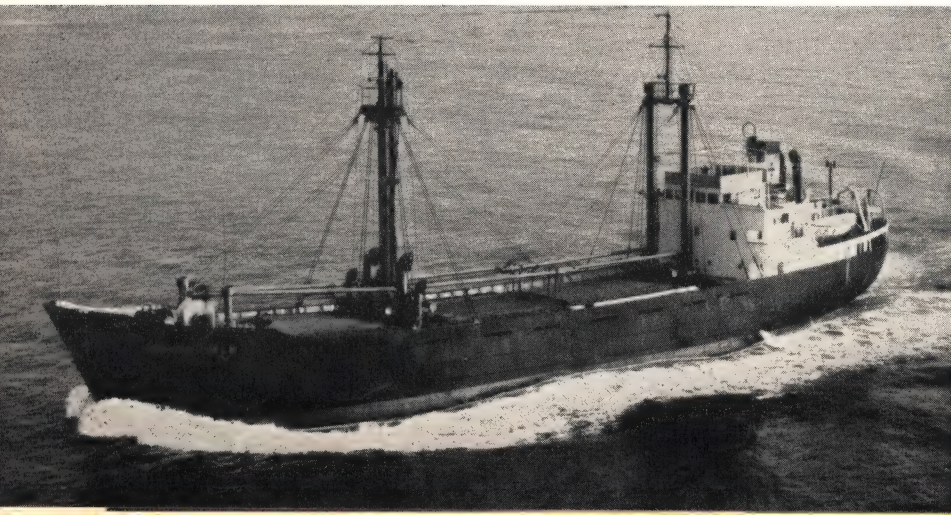
In 1919 the rebuilding of the fleet was started and before the second world war the line was operating eleven different services, seven of them being to India, others being to the Persian Gulf, Spain and Portugal, U.S.A.—Persian Gulf, and U.S.A.—South and East Africa. In 1945 the Hansa Line had for the

second time lost its whole fleet totalling 46 units of 301,413 tons gross.

In 1950 the Hansa Line, then the owners of two small coasters, was given permission to rebuild, and at the end of that year re-opened the service to the Persian Gulf, the first sailing being made by the newly purchased *Axenfels*. At the beginning of 1954 the company was operating 23 ships of 83,109 tons gross, with five units due for delivery during the year. Four services are now maintained; (1) monthly from North Europe to India, Pakistan and Ceylon, (2) another, every ten days to Red Sea and Persian Gulf ports, (3) a weekly one to Spain and Portugal, and (4) between Mediterranean ports and the Red Sea and Persian Gulf. This year will see the re-opening of the old established line to Burma, while with the delivery of new ships it will be possible to step-up the sailings to India, Pakistan and Ceylon.

PREWAR TYPES

The many steam driven cargo liners which the company built in the early 'twenties were almost all of around 6,000/7,000 tons gross, and like their predecessors, had a three island type hull with split superstructure and a very overhanging counter stern. There were two hatches in each well, one between the bridge and funnel and a sixth one on a poop which was rather longer than usual. Two pairs of very tall kingposts were fitted, one set by the funnel and the other very far aft, astern of the last

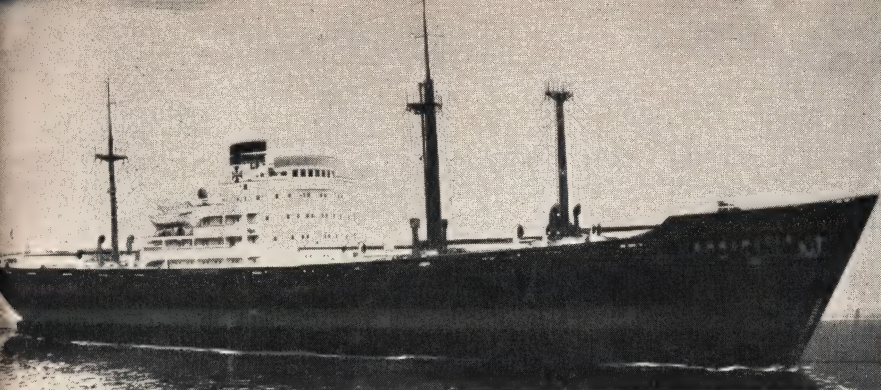


Left:

M.V. Rolandseck, 857 tons gross, one of a quartette built for the Spain/Portugal service

Right:

M.V. Argenfels, 6,159 tons gross, one of two standard ships in the fleet



Top of page 152,
M.V. Axenfels, 4,814
tons gross, which
opened the Persian
Gulf service in 1950

Left :
M.V. Ehrenfels, 5,560
tons gross, one of a
quartette built in
1953

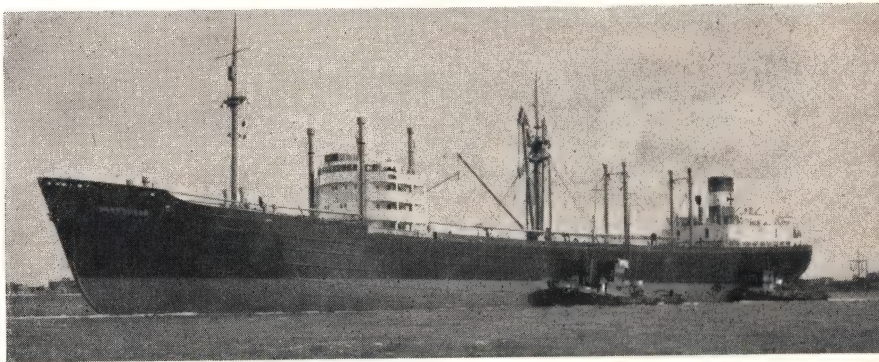
hatch. These features combined with tall vertical masts and funnel gave the vessels an unmistakable profile. Later units built for the company were given cruiser sterns but retained the split superstructure. With the exceptions mentioned below all were of the three island, six hatch layout, but with shorter well decks. It was not always the same island or islands which were lengthened ; this varied in each individual group of ships. Thus each class presented a slightly different profile. During this period there was one quartette built which had a

Stad Breda (ex *Schonfels*). Examples of the second class are provided by the present *Argenfels* and *Greiffenfels* as well as the Yugoslav owned *Srbija*, Dutch *Heelsum* and Russian *Dimitri Pozharski*.

THE PRESENT FLEET

The present Hansa Line fleet includes both deep-sea cargo liners and smaller types. Some have their machinery amidships ; in others it is placed aft. Starting with the major units, these include three purchased from abroad :

Right :
M.V. Barenfels, 6,974
tons gross, one of the
three " B " class ships



short raised fo'c'sle only. These four ships, named *Freienfels*, *Geierfels*, *Lichtenfels* and *Uhenfels* were built 1929-31 and were notable for their Maierform hull with rounded stem—and, too, for their massive heavy lift derricks.

Two other types, one with a short fo'c'sle and the other with a long one were added to the fleet during the war. Three of the former were built, two survivors being the *Kosciuszko* (ex *Rheinfels*) and the

CARGO LINERS, ENGINES AMIDSHIPS

m.v.	Axenfels	...	built	1930	4,814	gross
s.s.	Crosta-fels	...	"	1928	6,035	"
m.v.	Falkenfels	...	"	1939	5,066	"

The first two were bought in 1950 as the *Heimvard* and *Tactician* from L. Kloster and the Harrison Line respectively. The third, formerly the *Hoegh Silvercloud*, was added in 1953. The two ex-Norwegians are of raised fo'c'sle type, but the *Crosta-fels* is one of the tall funnelled, three island, counter stern type which formerly formed the backbone of the Harrison fleet.

s.s.	Argenfels	...	built	1950	6,159	gross
s.s.	Greiffenfels	...	"	1944	6,340	"

These are sisters of a standard type of which several were built. Both were ordered from Dutch yards during the German occupation of that country. The *Argenfels* was launched in 1944 by the Wilton Fyenoord yard at Schiedam, being completed six years later by the Rickmerswerft at Bremerhaven. The *Greiffenfels* was launched as such by the Netherlands S.B. Co., Amsterdam, but was later



allocated to the Dutch, and from 1945 until her purchase by the Hansa Line in 1950 was known as the *Nijmegen*. With a common beam of 60.6 ft. their overall length is 476.5 ft. and 474.5 ft., the deadweight capacity being 9,670 and 9,825 tons respectively. Each is driven by a reciprocating engine exhausting into a L.P. turbine and has a speed of 12 knots.

m.v. Drachenfels	built	1953	5,781	gross
m.v. Ehrenfels	...	1953	5,560	"
m.v. Frauenfels	...	1953	5,770	"
m.v. Freienfels	...	1953	5,770	"

These four ships were built by the A.G. Weser, the newest being the *Freienfels*, which entered service last December. They have an overall length of 469 ft. and a d.w.c. of just over 10,300 tons. A single 7 cyl. M.A.N. type diesel gives them a speed of about 13½ knots. In these units we see a break-away from the Hansa Line's traditional split superstructure layout. Instead, the central structure is short and tall.

s.s. **Hohenfels** ... Due 1954 4,500 gross (app.)

Now completing at Hamburg by the Howaldtswerke A.G., this ship is due for delivery in March. She will be approximately 444 ft. in overall length and 8,800 tons d.w. A single M.A.N. type diesel will give her a speed of 16 knots.

CARGO LINERS, ENGINES AFT

m.v. Barenfels	...	built	1951	6,974	gross
m.v. Birkenfels	...	"	1951	6,974	"
m.v. Brauenfels	...	"	1952	6,977	"

At present the largest units in the company's fleet, these striking looking vessels, were when built, amongst the largest units in the German merchant fleet. They have an overall length of 517 ft. and a d.w.c. of 10,869 tons. A notable feature of their design is the very long hatch before the mainmast and the fitting of a 165 ton derrick, the capacity of which may be increased at short notice to 205 tons. Two M.A.N. type diesels geared to a single shaft give a speed of 13½ knots.

m.v. Goldenfels	
m.v. Gutenfels	All due 1954
m.v. Kandelfels	6,300 gross (approx.)
m.v. Kybfels	

These four ships, now on order, will be generally similar to the "B" class and will each have a similar size heavy lift derrick. The bridge, however, will be rather tower-like in shape and be clear of the hull sides at its base, permitting the easier carriage of long deck cargoes. The *Goldenfels*, the first to be delivered, is due in March and will be followed in April/May by the *Gutenfels*. While all four will have a deadweight capacity of around the 10,000 ton mark, the first pair will be just over 500 ft. in overall length while the later "Ks" will be 516 ft. o.a.

SMALLER SHIPS, ENGINES AMIDSHIPS

Two handy sized vessels are named :

s.s. Lahneck	...	built	1938	1,445	gross
s.s. Stahleck	...	"	1944/52	1,985	"

The former was built at Oslo as the *Nyco*, subsequently becoming the *Polykarp* before being bought

by the Hansa Line in 1950. She was considerably altered after her purchase and was lengthened slightly, now being 276 ft. long overall. The other ship which is engaged in the Mediterranean ports-Persian Gulf service, is one of the smaller standard "Hansa" type, of which so many were built. A steamer of 3,188 tons d.w.c., she was launched at the De Klop yard at Slidrecht in 1944, eventually being completed in 1952 by Stulcken & Son. Like others of this series she is 301 ft. in length o.a., her breadth being 44 ft. A compound steam engine gives a speed of 11 knots.

SMALLER SHIPS, ENGINES AFT

Next we come to a completely different type, made up of four generally similar units :

m.v. Mariaeck	...	built	1953	846	gross
m.v. Rolandseck	...	"	1953	857	"
m.v. Schwaneck	...	"	1953	1,228	"
m.v. Soneck	...	"	1953	1,299	"

These operate between Hamburg and Rotterdam, Portugal and the Spanish Atlantic coast ports. All four are single screw ships with a length of 233 ft. overall. The first two, which are shelter deckers have a d.w. tonnage of about 1,290 compared with the figure of 1,760 for the other pair which are two deckers. Engine details too, vary slightly. The Hansa Line has also five coasters, all engaged in European trade :

m.v. Irak	...	built	1941	394	gross
m.v. Iran	...	"	1941	305	"
m.v. Acaste	...	"	1952	780	"
m.v. Dione	...	"	1951	777	"
m.v. Doride	...	"	1951	777	"

The last three—all built by the A.G. Weserwerke, of Seebeck, near Bremen—are registered under the ownership of an associated firm, the Cie. de Transports Maritime Cotmar, S.A. Small though they are, the acquisition of the first two marked an important stage in the company's history for they formed the nucleus of the present post-war fleet.

COVENTRY RADIO CONTROLLED MODELS CLUB—CHANGE OF NAME

As from April 1st, 1954, the Coventry Radio Controlled Models Club will become the Coventry Group of the I.R.C.M.S. (thus making five I.R.C.M.S. groups in all, the others being in London, Birmingham, Manchester and Tyne-side). The secretary of the new group is Mr. P. Haselock, 25 Wainbody Avenue, Coventry, Warwickshire. Meetings will continue to be held at the Allied Airmen's Club, 78 Holyhead Road, Coventry, on the first Wednesday of each month at 8 p.m.

MORE CLUB NEWS ON NEXT PAGE

news from the clubs

THAMES SHIPLOVERS AND MODEL MAKERS SOCIETY

At the model makers' meeting on Friday, February 12th, the illustrated talk and demonstration of soldering by Mr. R. Strauss of Fry's Metal Foundries was greatly appreciated. The various points necessary to ensure successful soldering were made clear, and the whole process was made more interesting. The meeting at the Baltic Exchange on Friday, February 26th, was addressed by Group Capt. H. L. Rudd and Wing Commander E. W. Hardie who told the audience about the history and development of the marine branch of the Royal Air Force and the types of craft used in it. There was a large audience and the lecture was followed by an interesting discussion. Photos were displayed on the screen by the episcopes and added greatly to the value of the lecture. The model makers' meeting for April will be held on Friday the 9th at the East Holborn Library, the subject dealing with the "finish" of ship models and their showcases. The name of the speaker will be announced later. At the meeting at the Baltic Exchange on April 30th, Mr. W. E. Sutton P.R.O. of the Port of Liverpool will give a talk on the Port of Liverpool. This will be illustrated. Hon. Sec.: H. V. EVANS, 134, Sunningfields Rd., Hendon, London, N.W.4.

Y.M. 6-M. OWNERS' ASSOCIATION

There has been plenty of activity at the club during the weekends when sailing has been possible, and as many as a dozen boats at a time of the three classes, "A," "M," and 3-footers, have been cruising and tuning-up. There has, however, been a regrettable absence of real "nose-enders," and light reaching winds have mostly prevailed since the autumn. *Naiad*, No. 357, designed and built by the club's president, Major General W. C. Holden, who won the National Championship with her in 1935, has been refitted, and has made an appearance with her new owner, Mr. Alan Hill, a keen and enthusiastic young skipper, who should do well with her this year.

The combined racing programme for 1954, of the Y.M. 6m. O.A. and the South London M.Y.C. includes a number of changes, and is more varied than usual, and the coming season promises to be an interesting one.

The Surbiton Shield, originally a Coronation trophy for 10 raters, was made an "A" class trophy for club racing after the war. The event will, in future, be an

open race for the "A" class, and will be held as near to the anniversary of Coronation Day as possible every year. This year the event will be held on May 30th.

The fixtures for April are as follows:

Date	Class	Event	Time
Sun. 4th.	"A" Class	Handicap race	2.00 p.m.
Sun. 11th.	"A" Class	Victory Cup (Handicap)	12.30 p.m.
Sat. 24th.	36 in. Class	Club race	2.30 p.m.
Sun. 25th.	10 "R" Class	Surbiton 10 rater Regatta (open)	10.30 a.m.

Hon. Sec.: N. D. HATFIELD, 132, Westbourne Grove, Westcliff-on-Sea, Essex.

THE WEMBLEY SHIP MODEL SOCIETY

The meetings of the above society for April will be held on Mondays 12th and 26th at the Bonhomie Tennis Club commencing at 7.45 p.m. On the 12th, Mr. H. V. Evans, hon. sec. of the Thames Shiplovers will give a lecture on "Exports from London." This will be illustrated with lantern slides. On the 26th there will be a talk on "Modern Marine Boilers" by G. W. Wilcox. Further particulars may be obtained from the Hon. Sec.: EWART C. FREESTON, 41, Daryngton Drive, Greenford, Middlesex.

MODEL YACHTING ASSOCIATION

The first important event of the season is the 36 in. "R" class National Championship which will be held at Dovercourt on the Easter weekend, April 17th to 19th. This is a grand sailing water and a good entry is expected. Further particulars are available from the Hon. Racing Secretary, M. FAIRBROTHER, 1221, Pershore Rd., Starchley, Birmingham 30.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

The final lecture of the season for the above society will be held on Tuesday April 13th, when Capt. George Ayre, A.I.N.A., F.R.G.S., will give a lecture on "The Lifeboat Service." The meeting will be held on board "Landfall," Canning Dock, Liverpool by courtesy of the Merseyside Master Mariners' Club. Persons interested in the society should contact the Hon. Treasurer, 28, Exchange Street East, Liverpool 2.

NORTH LONDON SOCIETY OF MODEL ENGINEERS

From the news sheet we have received from this society we gather that the boats and yachts section is forging ahead and has now been granted the use of the pond in Ravenscroft Gardens as a sailing water. It has a meeting of its own after the general meetings which are held on Tuesdays at the workshop at the water works. The news sheet contained a thought-stimulating article on Model Steam Ships by D. G. Gordon although we do not agree with all the writer's conclusions. Hon. Sec.: W. W. RANSOM, 6, Arundel Court, 127, Woodhouse Rd., London, N.12.

Some interesting types at a model yacht regatta in 1905 at Southwold, Suffolk





The "Albatross" in Shadwell Basin, London 1948

WESTWARD HO WITH THE ALBATROSS.

By Professor Håns Pettersson, published by Macmillan & Co. Ltd., London. 21/- nett.

This is a most unusual and withal fascinating book, being an account of a voyage round the world by a group of Swedish scientists, with the object of exploring and studying the sea-bed at great depths, its deposits, their interaction with the ocean water, and the thickness of the sediment carpet. Special coring devices were developed, enabling undisturbed sediment columns of lengths up to 60 or 70 feet to be brought up. In the central point of the Pacific Ocean, where the rate of deposition is slow, the lowest portion of such a core should have an age of twenty to thirty million years. The nature of the layers in such cores provides valuable data regarding the early history of the earth. Considerable research was carried on in connection with fishing in great depths, which although having no importance from a commercial point of view, produced results of absorbing interest to scientists. A century ago it was considered that there was no animal life below a depth of 300 fathoms, whereas this expedition found six different species below 3,000 fathoms, and obtained proof that living organisms exist at a depth of between 4,200 and 4,400 fathoms. Trawling at this depth involved the use of 40,000 ft. of steel cable. The mystery of deep-sea radium was investigated and some valuable information obtained. A fascinating feature of the voyage was the landings made at different ocean islands, which afforded opportunities for making botanical collections and taking photographs of animals and plants.

The 1,400 ton 4 mast auxiliary schooner *Albatross*, training ship of the Broström shipping combine, was made available for the expedition, and a large electric winch for handling the borers, trawls, and other special equipment, was installed. The area explored was confined to tropical latitudes as most of the work would have been impracticable under stormy weather conditions. Apart from its scientific interest the book will have a strong appeal for those who love a good travel story. This aspect of the expedition is well covered, and the visits to the Marquesas, Tahiti, Hawii, Bali and many other places are delightfully described. There are numerous

illustrations which include some beautiful pictures of the places visited and of the people they met. Altogether the author has combined very skilfully an illuminating and full account of the objectives and results of the expedition with a lively personal narrative that will appeal to a wide variety of readers.

A MAINSAIL HAUL

By John Masefield, published by Rupert Hart-Davis, London. 8s. 6d. nett.

This volume, which is No. 25 of the publisher's well-known Mariners Library, is a notable collection of writings by the Poet Laureate, whose love of the sea is evident in all his work. In his early days at sea the writer had doubtless listened to old shell-backs telling stories from their experience and sometimes from their imagination and this is probably the source of some of those in the book. Others are stories retold from the writings about the lives of the early seafarers and the pirates and buccaneers, and others again, such as the chapter on moonsails, are from Masefield's own early impressions. The blend is perfect, and the book is one which can be picked up at any time with the certainty that whatever one's mood something will always be found to suit it. The book is well produced, has a nice binding, and with its 178 pages of reading matter, is a good bargain at its modest price. The picture on the dust cover is not the least pleasant feature of the book.

RADIO CONTROL OF MODEL AIRCRAFT

By G. Sommerhoff, published by Percival Marshall & Co. Ltd., London. 9s. 6d. nett.

Although this book was written for builders of model aircraft it will be found equally suitable for the ship-modeller who wishes to control his model by radio. The elementary principles of radio control are clearly explained, and the various electrical appliances used in connection with it are described and illustrated. The book then goes on to elucidate the mysteries of escapements, relays, actuators, valves, and all the various items of equipment included in the apparatus used. Full details are given of both the transmitter and the receiver in all

their varied forms, with complete instructions for their manufacture and assembly. The installations described are chiefly confined to those used in model aircraft, but a study of the book would enable any model boat builder to adapt them to his requirements. The author is a lecturer at the Dragon School, Oxford, and all the apparatus described has been developed, constructed and used by him, with the assistance of the members of the science club of the school. The necessity of reducing the cost of radio control to a minimum has been uppermost in the author's mind. To this end he has given full constructional details for all the required equipment. The illustrations are numerous and beautifully clear, and are a decided asset to the book. We have every confidence in recommending this book to all interested in this fascinating subject.

WOODTURNING FOR THE BEGINNER

By Alan Macbeth, published by Percival Marshall & Co. Ltd., London. 3s. 6d. net.

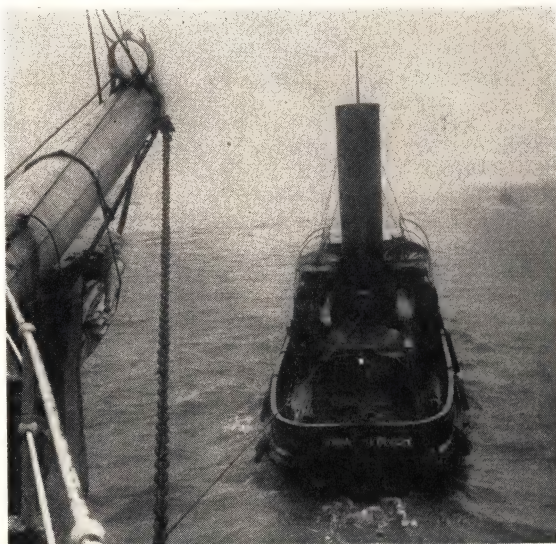
The model maker, whatever his special interest, usually finds, sooner or later, that he needs to do a bit of woodturning. In the average ship model there are lots of small details for the making of which a small lathe is necessary, and as these are usually made of wood, a knowledge of the special technique used in turning wood is a valuable asset. This information is contained in a very clear and concise form in the book under review. After some general notes on the workshop and its layout, the book describes the normal woodturning lathe and its attachments, and continues with the description of a small home-made lathe built by the author in his youth with the special object of making ship model fittings. Another section explains how to adapt the lathe as a saw-bench, which again would be useful in cutting out planks and similar pieces. A useful section is that explaining how to mount different objects in the lathe, and, when mounted, how to proceed with the turning operations. The illustrations in this section are particularly helpful. The chapter on finishing and polishing deals with the preparation of the finished work and its subsequent finish, whether by french polishing, staining, fuming or wax polishing. Altogether this is a very practical and comprehensive little book, and one which no model maker can afford to be without.

INTERNATIONAL RADIO CONTROLLED MODELS SOCIETY, Bulletins 13 and 14.

These, the two latest bulletins published by this society are of the greatest interest to the ship modeller. The preparation of each issue by a different group gives a pleasing variety to both contents and make-up. Bulletin No. 13 was produced by the Manchester Group, and contains a number of lively and amusing cartoons. We were not previously aware that Mr. Hogg was so handy with his pencil. The cover sketch by Mrs. J. D. Dunderdale is equally amusing. The chairman's remarks about the responsibility of demonstrators at exhibitions, especially commercial exhibitions, to the promoters and to visitors, are very much to the point, and are worthy of a wider audience.

These were followed by an interesting report of the radio contest for boats on July 25th of last year and one for aircraft on the day following. Another report was that of the inter-group contest on August 23rd between Manchester and Birmingham. Howard G. McEntee of the Pacific R.C. Society contributes an article on "Radio Control on 150 kilocycles" and P. W. Pearson contributes one on "Variable Control for Diesel Engines" which should be appreciated, especially in view of the present interest in this question. This is accompanied by drawings of two carburettors which greatly increase its value. Other articles include one on "A new Three-Control System" by G. Sommerhoff and one on "Adjusting Siemen's Relays" by C. H. Lindsey.

Bulletin No. 14 was prepared by the London group. This was produced by a new process which is a great improvement on that used for previous issues. The drawings in particular are very clear and well produced. The first article is "A Wife's Lament" by Sylvia Wayne, which contains much food for thought, pleasantly presented. R. Ing. contributes two valuable articles, one on "Making Tuned Reeds" and the other describing useful equipment which is available. T. G. Carrington Wood writes on "The Model Paddlers" and also describes the new Fenner-Pike servo unit. Lieut. G. Chapman R.N. gives an interesting history of radio control since 1946 and Mr. A. T. Tamplin writes of his experiences at the B.B.C. when his Churchill tank was televised. Another interesting article is that by A. J. Miley on "A Steering Motor for Boats." This is illustrated by some very useful drawings. Altogether this is a very good number and the interest in apparatus as compared with theoretical discussions seems to be on the increase. These bulletins are a great asset to the society and should attract new members.



The tug "Java" towing the "Cutty Sark," for story see "The Ship's Log"

● Letters of general interest on maritime matters are welcomed. A nom-de-plume may be used if desired, but the name and address of the sender must accompany the letter. The Editor does not accept responsibility for the views expressed by correspondents

MINIATURE MODELLING

Whilst finding Mr. G. H. Draper's article in the February SHIPS AND SHIP MODELS most interesting, I should like to pass a few comments about the "shipping office window" type of model.

First with the home modellers who do ship modelling as a hobby, they please themselves entirely on the model, time taken, amount of detail and finish. Now, the professional model maker is rather tied and the ultimate aim is to please the customer and carry out his wishes.

If the professional is self-employed he has a freer hand than one employed by a model firm. He has a governor to please as well as ultimately the customer. Maybe I can make the point clearer; if an employed model maker has a query he goes to his governor, maybe direct or through a foreman, and he gives his decision. A self-employed model maker with the same query goes direct to whoever placed the order and gets his information first hand.

About the points Mr. Draper brings to notice. I agree there is no attempt at showing hull plating, but commercial models are made for a price which, in the case of ship models, is fairly cut and dried. The extra cost of showing hull plating would raise a few eyebrows, but I think the biggest obstacles are tradition, custom and habit.

As to silver and gold plating, don't blame the model maker—he carries out the customer's wishes. I personally know professional model makers who write at the mere mention of plated fittings, and decks like roller-skating rinks; these again are only to please the customer.

About ships boats, there is, of course, no excuse for bad shape; but as to whether they should be carvel or clinker built is an open question. So many ships today are using metal-built lifeboats that unless the observer knows the details of the particular ship, the judgment of these items whether they should or should not be carvel built should be restrained.

Being at one time a professional model maker I should say the aim of a commercial model is overall appearance, and don't forget the worker is tied down to a time in which to complete the model.

One other thing which must be kept in mind, the models are for advertisement shop window purposes and are not museum pieces, although there are a number of this type of model so placed.

Wimbledon, S.W.19.

RONALD BOOTH

A QUERY ANSWERED

In your February issue, I was interested to hear of reader Mr. Townsend's problem of "getting rid

of the gap when a half-model is placed against a mirror."

When the "Silver Collection" of figureheads was housed at Gravesend, my father did most of the restoration work. We also met the same problem once, as Mr. Townsend has now, and as many readers will perhaps realise the solution is to use mirror-glass that has been silvered on the face of the glass.

May I suggest that the cheapest thing for Mr. Townsend to do would be to obtain an old piece of mirror-glass, clean off the silvering—perhaps carefully with spirits-of-salts—then take the glass to a good furnishing company and have the face of the glass re-silvered.

This re-silvering should cost around five-shillings per square foot.

ARTHUR O. POLLARD

A PLEA FOR THE IRONCLADS

I have read through the first number of the revived SHIPS AND SHIP MODELS and can find no fault with it. Indeed it is a praiseworthy effort and one which should undoubtedly go far and provide pleasure and information to all of us interested in the sea and ships.

I am not writing to criticise—rather to state a case for the enthusiast and model maker whose activities today fall between two stools. We have firmly established the golden era of sail, Drake, Nelson, *Golden Hind*, *Victory*, the tea clippers, etc., etc. We have also well established the equally golden, if less romantic, era of steam—Brighton pleasure steamers, Thames tugs, tramps, *Queen Mary*, etc. My plea is for those of us who follow naval warfare as from the steam era's beginning—when things began to liven up and the fascinating changes of tactics and weapons brought about the race for superiority at sea between the great nations. In a few words, why can't we have more information on steam warships from, say, the 1880's onwards. All too often, particularly in warships, we seem to skip the transitional period. I can well understand the impossibility of keeping up with present day developments, for historical records must needs be affected by security, but I would respectfully draw your attention to the excellent plans issued by the "Musée de la Marine" in Paris, of contemporary French cruisers, battleships, and destroyers, as they were as recently as the end of the war. These plans are a joy to the model maker. The nearest we have to that are the fine series only just issued by Mr. Ough (which are even better than the French efforts), but where are our detailed plans for those who

would build a model of, say, H.M.S. *Tiger*, or the famous *Dreadnought* of Lord Fisher? or of the fine German ships of the tragically ill-fated high seas fleet of Wilhelm II? Surely these subjects are worthy of consideration. Must the modeller interested in naval subjects be forced to content himself for ever with *Victory's*, *Nelson's* and inaccurate aircraft carriers? A modeller like Mr. Ough, who is presumably a professional, can obtain information and has access to files and collections and authorities. The average enthusiast looks to such folk and to your magazine for such guidance. Would not a serialised history of, say, the battleship be worth while, with ample photos to show where wooden decks and steel decks were, so that the modeller need not make blazing inaccuracies. I am quite able to draw side elevations etc., to a suitable scale, but what of the aforementioned decks and platforms, boat stowage, etc? I have built a waterline model of the French training cruiser *Jeanne D'Arc* which creates great interest and comment because it is something

of varying abilities and possibilities. Any model exhibition from the "Model Engineer" down to the village hall, shows that.

You will, I hope, forgive my long-winded letter. I started with the intention of being brief. With thanks for your fine magazine—as well as for its ancestor MODEL SHIPS AND POWER BOATS. Harrogate.

R. FANO

MORE ABOUT MIRROR MODELS

Although I have never seen a model of the type described by Mr. P. Townsend in his letter to January "Mailboat," I should imagine that the effect desired could only be obtained by the use of surface-silvered mirror.

The ordinary type of back silvered mirror must obviously show separation of the planes to an extent dependent on the thickness of glass.

If Mr. Townsend scans the advertising columns of "The Amateur Photographer" he will find firms



S.S. Haiching entering Hong Kong harbour after her encounter



The damage to the bridge structure of S.S. Haiching

different. I wish to build a model of the *Yavuz Selim*, Turkish Navy and ex German *Goeben*—again, different and in no small way historic, but I can get no further than general arrangement drawings. No deck details are available—at any rate not easily available. Photos are, of course, very valuable (I have nearly all the set of *Janes Fighting Ships*). There must be, among all the noted modellers in this country, those who have knowledge (and the desire to impart it) of these ships, and of the impressive old *Majestics* with their side-by-side buff funnels, black hulls and white upperworks, of the fantastic old *Inflexible*, the incredible and legendary *Polyphemus* ramming ship, to say nothing of the obscure, but important ships which taught men to build the warships of today. Couldn't something be done to assist the desire to model these fascinating ships of a fascinating era, which, paradoxically enough, we seem to know less about than the "Wooden Walls"? I feel an important link in the history of the British Fleet, as of the world's fighting fleets, is being ignored, and a tantalising challenge is being withheld from modellers

who supply the surface-silvered type, usually for optical instruments, cameras, etc., but it may be possible to obtain further information from those sources. Wishing him success in his efforts. Didcot.

C. W. McDONALD

YO-HO-HO, ETC.

After reading the article (in the Feb. issue of SHIPS AND SHIP MODELS) by Captain Course—The Glenfruin—I was reminded of a similar incident to that which occurred to the *Hong Hwa* but in this case resistance was offered to the attack of Chinese pirates by the ships officers and you can see by the accompanying photos what happened after the fire had burnt all the upper works of the bridge structure.

I was serving in H.M.S. *Kent*, the flagship of the Chinese station at this time (1928) and saw the *Haiching* enter the harbour. The photographs were taken by a local photographer. I thought they might be of interest to you, the readers of our excellent journal, or Captain Course.

Thames S.M.S.

A. STANNARD

A SCENIC MINIATURE OF CUTTY SARK

by Charles Hampshire

Last July I started work on a model of the "Cutty Sark." I wanted to portray that famous ship just as she was in her prime in 1870, so I obtained correct drawings from the original plans published by Percival Marshall & Co., and drawn by H. Underwood, of Glasgow. The "Cutty Sark" is 212 ft. in length with a beam of 35 ft., and a registered tonnage of 921. She was finished building at Denny's of Glasgow, in 1869.

The model is to my usual scale of 64 feet to the inch, and shows the ship running before the wind in a lively sea with all sail set, port and starboard upper and lower stuns'ls on foremast and sky-s'l on the main. She is wearing her code signals numbers J.K.W.S. under the Willis House flag on the main.

I have used a new medium with the sails. I found that very thin grease-proof paper made excellent material for them, it gives just that delightful sheen, which one sees with the fine quality cotton sail cloth used by those famous clipper ships, and it responded very well to my method of damping the set sail with a camel hair brush, and then ironing out immediately with

a small hot iron, thus giving that bellowing effect of wind in a sail.

To get the look of the white cotton rope, with which these ships were rigged, I carefully stripped down a good quality white thread into strands as thin as a spider's web, these I gently drew through my fingers wetted with a weak solution of Croid glue and water, then wound the strands on a frame-like harp to dry. These are then cut off the exact length and remain stiff. It is very fiddling work, but worth the trouble, as the result is very realistic.

The model has two lifeboats fitted with minute oars lashed to the seats. I also fitted a longboat lashed upside down on the roof of the fore-deck house, and to give a touch of realism I made a representation of a man

hanging on to the spokes of the steering wheel.

The main bilge pump just abaft the main mast, I made of the finest brass wire procurable and there is a representation of a shark's tail fixed on to the extreme end of the jibboom.

I have given the model plenty of sea room all round so as to show it off to its full advantage. Many a good model has been spoilt through being put in too small a case.

Putty is my medium for the sea. I find this material keeps in a soft plastic condition for several days, which gives you plenty of time to make a thorough job of modelling the waves, then a speck of artist's flake white oil colour on the crest of the waves, gives the final realistic touch to the model.



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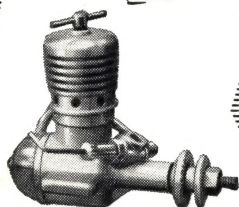
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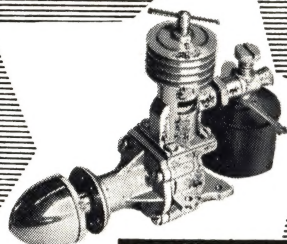
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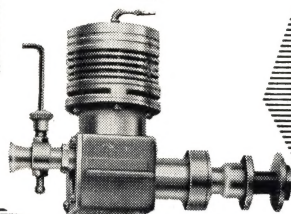
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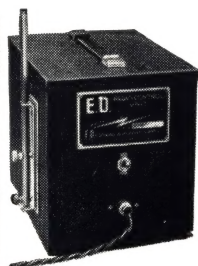
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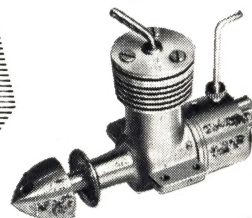
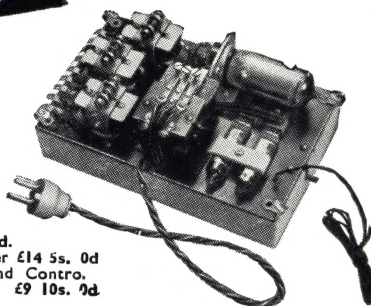
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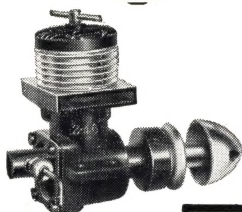
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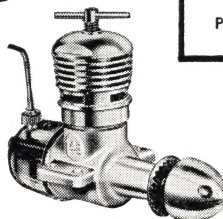
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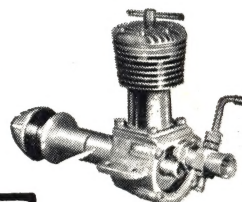
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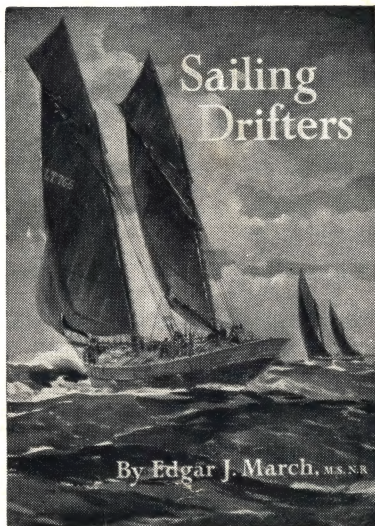
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